REMARKS

Applicants respectfully request entry of the following amendments and remarks in response to the Office Action mailed June 12, 2009. Applicants respectfully submit that the amendments and remarks contained herein place the instant application in condition for allowance.

Upon entry of the amendments in this response, claims 1, 6, 11 – 14, 16, 17 and 19 – 39 are pending. In particular, Applicants amend claims 1, 6, and 23 – 38. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

I. Objections to the Specification

The Office Action indicates that the specification is objected to as failing to provide proper antecedent basis for the subject matter of claims 1, 2, 23 – 25, and 30 – 32. Applicants respectfully traverse this rejection. More specifically, MPEP §608.01(o) states:

[u]usually the terminology of the original claims follows the nomenclature of the specification, but sometimes in amending the claims or in adding new claims, new terms are introduced that do not appear in the specification…

(Emphasis added).

Applicants submit that, as illustrated in the passage above, the MPEP provides for scenarios where terms do not appear in the specification. However, as long as one of ordinary skill in the art would understand the scope of the specification to include the claimed subject matter, 35 U.S.C. §112 is fulfilled.

With regard to claims 1, 2, 23 – 25, and 30 – 32, each of the terms would unquestionably be understood by one of ordinary skill in the art as being a concept included in the specification of the present application. For at least this reason, Applicants respectfully traverse this objection.
II. **Rejections Under 35 U.S.C. §112, first paragraph**

The Office Action indicates that claims 1, 2, 6, 23 – 25, and 30 – 32 stand rejected under 35 U.S.C. §112, first paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants traverse these rejections. First, with regard to claims 1, 2, 23 – 25, and 30 – 32, the Office Action argues that “searching for” or “searching logic” is not displayed. Applicants disagree. As clearly illustrated on page 18, line 15 (as well as elsewhere) of the written description, the present application clearly states “[i]n other embodiments, the process may search for non-displaying characters, such as, for example, HTML tags or extensible markup language (XML) tags and their respective arguments. The HTML and XML tags, and their respective arguments, may be removed (or ignored) in order to determine the displayable characters” (id). As clearly illustrated in this passage, these elements are unquestionably disclosed in the written description to a degree that fulfills 35 U.S.C. §112. Further, with regard to claim 6, the Office Action argues “the displaying characters of the SMTP email address” are not disclosed. Again, Applicants disagree. More specifically, page 18, line 4 states “to generate a displayable body of characters” (id.) For at least these reasons, Applicants traverse these rejections and submit that claims 1, 2, 6, 23 – 25, and 30 – 32 fulfill all the requirements of 35 U.S.C. §112.


The Office Action rejects claims 6, 23 – 25, and 30 – 32 under 35 U.S.C. §112, second paragraph. More specifically, the Office Action argues that “the displaying characters of the SMTP address” are unclear. Applicants disagree. More specifically, this phrase clearly indicates those characters that are being displayed. Accordingly, Applicants respectfully submit that this rejection is misplaced. With regard to claims 30 – 32, the Office Action argues that “tokenize logic configured to tokenize the attachment to generate” is unclear. Appellants
disagree, but amend these claims to advance prosecution. Additionally, with regard to claims 23 – 25, 30 – 33, and 35, the Office Action argues that there is insufficient antecedent basis with regard to the phrase “the attachment.” Applicants amend these claims, thus rendering this issue moot.


The Office Action indicates that claims 23 – 38 stand rejected under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter.

A. **Claims 23, 25 – 29, and 32 – 38**

Applicants traverse the rejection of these claims, but amend claims 23, 25 – 29, and 32 – 38, as indicated above. Applicants submit that claims 23, 25 – 29, and 32 – 38, as amended, fulfill all the requirements of 35 U.S.C. §101.

B. **Claims 24 and 31**

With regard to claims 24 and 31, the Office Action argues that a “system comprising means for” is nonstatutory because, as the Office Action argues “Applicant’s system consists of software and thus is directed to non-statutory subject matter” (OA page 5, line 23). Applicants disagree. More specifically, MPEP §2181, quoting the Court of Appeals for the Federal Circuit in In re Donaldson Co., 16 F.3d 1189, 29 USPQ2d 1845 (Fed. Cir. 1994), states “the ‘broadest reasonable interpretation’ that an examiner may give means-plus-function language is that statutorily mandated in paragraph six. Accordingly, the PTO may not disregard the structure disclosed in the specification corresponding to such language when rendering a patentability determination” *(emphasis added).*
First, the present application clearly discloses structure for each of the claim elements of claims 24 and 31. More specifically, the as illustrated on page 8, line 15, among other places, the present application discloses a processor 152, a memory 154, etc. Further, beginning page 8, line 21 and FIG. 2, among other places, various pieces of logic are disclosed.

As illustrated in the above cited passages of the written description, at least one embodiment for a “means for tokenizing” and a means for sorting” of claim 24, for example, includes a specific hardware component (e.g., a processor and/or memory component) that is configured to implement the claimed function. Similarly, other embodiments may include a processor and/or a memory (and/or other components) that facilitate the recited function.

Second, the Examiner’s statement is technologically incorrect. More specifically, the Examiner argues “[i]t thus appears that Applicant’s system consists of software” (page 5, line 22). This is an incorrect statement. As is clearly evident to one of ordinary skill in the art, software is merely a set of instructions that may be executed by computer hardware to perform one or more actions. Accordingly, software cannot perform any function of claims 24 and 31 without interaction with some type of hardware. As a nonlimiting example, software (acting exclusively) cannot “tokenize the SMTP email address” (claim 24) without being executed on computer hardware. Consequently, the “means for” terminology that precedes the recited function must include hardware.

In its rejection, the Final Office Action neglects the disclosure of the corresponding structure in order to impermissibly limit the scope of claims 24 and 31 to only include software, contrary to 35 U.S.C. §112 ¶6 and MPEP §2181. Appellants explicitly utilize the “means for” language to invoke 35 U.S.C. §112 ¶6, to thereby capture structure disclosed in the specification. Accordingly, Appellants traverse this rejection and submit that claims 24 and 31 meet all the requirements of 35 U.S.C. §101.
C. **Claim 30**

The Office Action argues that claim 30 fails to meet the requirements of 35 U.S.C. §101 because “[s]aid claim thus appears to be directed to the same media as claims 25 – 29 and 32 – 38” (OA page 6, line 2). Applicants again disagree. A memory component is clearly statutory subject matter for at least the reason that a memory component would be classified as a machine or manufacture. Regardless of whether the memory includes logic (most if not all memory does include some type of logic), because claim 30 includes a memory, all the elements of 35 U.S.C. §101 are fulfilled.

V. **Rejections Under 35 U.S.C. §103**

A. **Claim 1 is Allowable Over Shipp, Devine, Miliken, Anderson, Uuencode and MIME FAQ, Gordon, Sahami, Woitaszek, and Burdick**

A method comprising:

(A) receiving an email message from a simple mail transfer protocol (SMTP) server, the email message comprising displaying characters and non-displaying characters, the non-displaying characters including non-displaying comments and non-displaying control characters; the email message further comprising:
   (A1) a 32-bit string indicative of the length of the email message;
   (A2) a text body;
   (A3) an SMTP email that includes a user name and a domain name;
   (A4) an attachment;
(B) searching for the non-displaying characters in the email;
(C) removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters;
(D) determining non-alphabetic displaying characters in the email, where determining non-alphabetic displaying characters includes a per-character analysis that recursively determines for each character whether:
   (D1) a character is a non-alphabetic character;
   (D2) if the character is a non-alphabetic character, whether the character is a space;
   (D3) if the character is a space, determine whether the space is adjacent to a solitary “i” or “a”; and
   (D4) if the non-alphabetic character is not a space, filtering the determined non-alphabetic displaying characters from the email;
(E) generating a phonetic equivalent for each word that includes only alphabetic displaying characters that has a phonetic equivalent;
(F) tokenizing the phonetic equivalents in the displaying text body to generate tokens representative of words in the text;
(G) tokenizing the SMTP email address to generate a token representative of the SMTP email address;
(H) tokenizing the domain name to generate a token that is representative domain name;
(I) tokenizing the attachment to generate a token that is representative of the attachment, wherein tokenizing comprises:
   (I1) generating a 128-bit MD5 hash of the attachment;
   (I2) appending the 32-bit string to the generated MD5 hash to produce a 160-bit number; and
   (I3) UUencoding the 160-bit number to generate the token representative of the attachment;
(J) determining a spam probability value for each of the generated tokens;
(K) sorting the generated tokens in accordance with the corresponding determined spam probability value to determine a predefined number of interesting tokens, the predefined number of
interesting tokens being a subset of the generated tokens:
(L) classifying the generated tokens as spam, non-spam, or neutral;
(M) selecting the predefined number of interesting tokens, the interesting tokens being the generated tokens having the greatest non-neutral probability values;
(N) performing a Bayesian analysis on the selected interesting tokens to generate a spam probability; and
(O) categorizing the email message as a function of the generated spam probability.

(Emphasis added).

Applicants submit that claim 1, as amended, is allowable over the cited art for at least the reason that none of the references, taken alone or in combination, discloses, teaches, or suggests a “method comprising… removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 1, as amended. More specifically, Shipp discloses “[t]he invention is to weed out candidates for logging so that the normal mail is not logged. This reduces the burden on the database 23, and improves performance… A simplistic algorithm would be: If mail contains attachments, do not log” (page 3, paragraphs [0080] – [0081]). However, Shipp fails to even suggest and the Office Action never asserts that Shipp discloses “removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 1, as amended.

Additionally, Devine fails to overcome the deficiencies of Shipp. More specifically, Devine discloses a “series of security protocols and an integrated system for the same that enables a user to interface with one or more application services provided by remote servers over the public internet, or an enterprise extranet” (column 2, line 58). However, Devine fails to even suggest and the Office Action never asserts that Devine discloses “removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 1, as amended.
Further, Milliken fails to overcome the deficiencies of Shipp and Devine. More specifically, Milliken discloses a “method for detecting transmission of potentially unwanted e-mail messages is provided. The method includes receiving e-mail messages and generating hash values based on one or more portions of the e-mail messages” (paragraph [0010]). However, Milliken fails to even suggest and the Office Action never asserts that Milliken discloses “removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 1, as amended.

Similarly, Anderson fails to overcome the deficiencies of Shipp, Devine, and Milliken. More specifically, Anderson discloses “data payloads containing the identified network transmission items are selectively transmitted on an internal destination node within an internal network” (page 7, paragraph [0076]). However, Anderson fails to even suggest and the Office Action never asserts that Anderson discloses “removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 1, as amended.

Additionally, Uuencode fails to overcome the deficiencies of Shipp, Devine, Milliken, and Anderson. More specifically, Uuencode discloses “discloses converting a binary file on an ASCII or text file so it can be sent as an attachment to an email message or downloaded from a newsgroup” (page 1, line 14). However, Uuencode fails to even suggest and the Office Action never asserts that Uuencode discloses “removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 1, as amended.

Further, Gordon fails to overcome the deficiencies of Shipp, Devine, Milliken, Anderson, and Uuencode. More specifically, as cited by the Office Action, Gordon discloses “[t]o facilitate future processing, the electronic mail messages are normalized in operation 704. Such
normalization may remove various formatting specific to the protocols associated with electronic mail messages” (column, 9, line 56). As illustrated in this passage, Gordon discloses that formatting that is specific to a protocol may be removed. This has nothing to do with whether that formatting is displayable or non-displayable. Further, Gordon fails to even suggest anything regarding removal of non-displaying comments. Consequently, Gordon fails to even suggest “removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 1, as amended.

Additionally, Sahami fails to overcome the deficiencies of Shipp, Devine, Milliken, Anderson, Uuencode, and Gordon. More specifically, Sahami discloses “[determining] whether a message has attached documents (most junk E-mail does not have them)... [is] also [a] powerful distinguisher between junk and legitimate E-mail” (page 3, right column, last paragraph). However, Sahami fails to even suggest and the Office Action never asserts that Sahami discloses “removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 1, as amended.

Further, Woitaszek fails to overcome the deficiencies of Shipp, Devine, Milliken, Anderson, Uuencode, Gordon, and Sahami. More specifically, Woitaszek discloses “[e]ach message [is] parsed to completely remove any headers, attachments, HTML markup, punctuation, and extended characters. This procedure essentially reduces a mail message to a series of delimited lowercase string tokens” (page 2, section 4). However, Woitaszek fails to even suggest “removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 1, as amended. Thus, for at least the reason that none of the references disclose or suggest all of the claimed elements, the combination of ten (10) references does not render obvious claim 1. For at least these reasons, claim 1, as amended, is allowable.
B. Claim 6 is Allowable Over Shipp, Milliken, Sahami, Woitaszek, and Gordon

The Office Action indicates that claim 6 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent Publication Number 2004/0093384 ("Shipp") in view of U.S. Patent Publication Number 2004/0073617 ("Milliken") further in view of A Bayesian Approach to Filtering Junk E-Mail ("Sahami") further in view of Identifying Junk Electronic Mail In Microsoft Outlook with a Support Vector Machine ("Woitaszek"), and U.S. Patent Number 6,732,157 ("Gordon"). Applicants respectfully traverse this rejection for at least the reason that Shipp in view of Milliken, Sahami, Woitaszek, and Gordon fail to disclose, teach, or suggest all of the elements of claim 6. More specifically, claim 6 recites:

A method comprising:
receiving, at a computing device, an email message comprising a text body, an SMTP email address, an attachment, and a domain name corresponding to the SMTP email address, the text body including displaying characters and non-displaying characters;
searching for the non-displaying characters in the email;
removing the searched non-displaying characters, including non-displaying comments and non-displaying control characters;
tokenizing the SMTP email address to generate a token representative of the displaying characters of the SMTP email address;
tokenizing the attachment to generate a token that is representative of the attachment;
tokenizing the domain name to generate a token representative of the domain name;
determining a spam probability value from the generated tokens; and
sorting the generated tokens in accordance with the corresponding determined spam probability value to determine a predefined number of interesting tokens, the predefined number of interesting tokens being a subset of the generated tokens.

(Emphasis added).

Applicants submit that claim 6, as amended, is allowable over the cited art for at least the reason that none of the references, taken alone or in combination, discloses, teaches, or
suggests a “method comprising… removing the searched non-displaying characters, including non-displaying comments and non-displaying control characters” as recited in claim 6, as amended. More specifically, Shipp discloses “[t]he invention is to weed out candidates for logging so that the normal mail is not logged. This reduces the burden on the database 23, and improves performance… A simplistic algorithm would be: If mail contains attachments, do not log” (page 3, paragraphs [0080] – [0081]). However, Shipp fails to even suggest and the Office Action never asserts that Shipp discloses “removing the searched non-displaying characters, including non-displaying comments and non-displaying control characters” as recited in claim 6, as amended.

Further, Milliken fails to overcome the deficiencies of Shipp. More specifically, Milliken discloses a “method for detecting transmission of potentially unwanted e-mail messages is provided. The method includes receiving e-mail messages and generating hash values based on one or more portions of the e-mail messages” (paragraph [0010]). However, Milliken fails to even suggest and the Office Action never asserts that Milliken discloses “removing the searched non-displaying characters, including non-displaying comments and non-displaying control characters” as recited in claim 6, as amended.

Further, Gordon fails to overcome the deficiencies of Shipp, and Milliken. More specifically, as cited by the Office Action, Gordon discloses “[t]o facilitate future processing, the electronic mail messages are normalized in operation 704. Such normalization may remove various formatting specific to the protocols associated with the electronic mail messages” (column, 9, line 56). As illustrated in this passage, Gordon discloses that formatting that is specific to a protocol may be removed. This has nothing to do with whether that formatting is displayable or non-displayable. Further, Gordon fails to even suggest anything regarding removal of non-displaying comments. Consequently, Gordon fails to even suggest “removing
the searched non-displaying characters, including non-displaying comments and non-displaying control characters" as recited in claim 6, as amended.

Additionally, Sahami fails to overcome the deficiencies of Shipp, Milliken, and Gordon. More specifically, Sahami discloses "[determining] whether a message has attached documents (most junk E-mail does not have them)... [is] also [a] powerful distiguisher between junk and legitimate E-mail" (page 3, right column, last paragraph). However, Sahami fails to even suggest and the Office Action never asserts that Sahami discloses "removing the searched non-displaying characters, including non-displaying comments and non-displaying control characters" as recited in claim 6, as amended.

Further, Woitaszek fails to overcome the deficiencies of Shipp, Milliken, Gordon, and Sahami. More specifically, Woitaszek discloses "[e]ach message [is] parsed to completely remove any headers, attachments, HTML markup, punctuation, and extended characters. This procedure essentially reduces a mail message to a series of delimited lowercase string tokens" (page 2, section 4). However, Woitaszek fails to even suggest "removing the searched non-displaying characters, including non-displaying comments and non-displaying control characters" as recited in claim 6, as amended. Thus, for at least the reason that none of the references disclose or suggest all of the claimed elements, the combination of references does not render obvious claim 6. For at least these reasons, claim 6, as amended, is allowable.

C. Claim 23 is Allowable Over Shipp, Milliken, Sahami, Woitaszek, and Gordon

6,732,157 ("Gordon"). Applicants respectfully traverse this rejection for at least the reason that Shipp in view of Milliken, Sahami, Woitaszek, and Gordon fail to disclose, teach, or suggest all of the elements of claim 23. More specifically, claim 23 recites:

A system comprising:
- a memory component that stores at least the following:
  - email receive logic configured to receive an email message comprising an SMTP email address, a domain name corresponding to the SMTP email address, and an attachment, the email message further including displaying characters and non-displaying characters;
  - searching logic configured to search for the non-displaying characters in the email;
  - removing logic configured to remove the searched non-displaying characters, including non-displaying comments and the non-displaying control characters;
  - tokenize logic configured to tokenize the SMTP email address to generate a token representative of the SMTP email address;
  - tokenize logic configured to tokenize the attachment to generate a token that is representative of the attachment;
  - tokenize logic configured to tokenize the domain name to generate a token representative of the domain name;
  - analysis logic configured to determine a spam probability value from the generated tokens; and
  - sorting logic configured to sort the generated tokens in accordance with the corresponding determined spam probability value to determine a predefined number of interesting tokens, the predefined number of interesting tokens being a subset of the generated tokens, wherein only displaying characters are tokenized.

*(Emphasis added).*

Applicants submit that claim 23, as amended, is allowable over the cited art for at least the reason that none of the references, taken alone or in combination, discloses, teaches, or suggests a “system comprising… removing logic configured to remove the searched non-displaying characters, including non-displaying comments and the non-displaying control characters” as recited in claim 23, as amended. More specifically, Shipp discloses “[t]he invention is to weed out candidates for logging so that the normal mail is not logged. This
reduces the burden on the database 23, and improves performance... A simplistic algorithm would be: If mail contains attachments, do not log” (page 3, paragraphs [0080] – [0081]). However, Shipp fails to even suggest and the Office Action never asserts that Shipp discloses “removing logic configured to remove the searched non-displaying characters, including non-displaying comments and the non-displaying control characters” as recited in claim 23, as amended.

Further, Milliken fails to overcome the deficiencies of Shipp. More specifically, Milliken discloses a “method for detecting transmission of potentially unwanted e-mail messages is provided. The method includes receiving e-mail messages and generating hash values based on one or more portions of the e-mail messages” (paragraph [0010]). However, Milliken fails to even suggest and the Office Action never asserts that Milliken discloses “removing logic configured to remove the searched non-displaying characters, including non-displaying comments and the non-displaying control characters” as recited in claim 23, as amended.

Further, Gordon fails to overcome the deficiencies of Shipp, and Milliken. More specifically, as cited by the Office Action, Gordon discloses “[t]o facilitate future processing, the electronic mail messages are normalized in operation 704. Such normalization may remove various formatting specific to the protocols associated with he electronic mail messages” (column, 9, line 56). As illustrated in this passage, Gordon discloses that formatting that is specific to a protocol may be removed. This has nothing to do with whether that formatting is displayable or non-displayable. Further, Gordon fails to even suggest anything regarding removal of non-displaying comments. Consequently, Gordon fails to even suggest “removing logic configured to remove the searched non-displaying characters, including non-displaying comments and the non-displaying control characters” as recited in claim 23, as amended.
Additionally, Sahami fails to overcome the deficiencies of Shipp, Milliken, and Gordon. More specifically, Sahami discloses “[determining] whether a message has attached documents (most junk E-mail does not have them)... [i]s also [a] powerful distinguisher between junk and legitimate E-mail” (page 3, right column, last paragraph). However, Sahami fails to even suggest and the Office Action never asserts that Sahami discloses “removing logic configured to remove the searched non-displaying characters, including non-displaying comments and the non-displaying control characters” as recited in claim 23, as amended.

Further, Woitaszek fails to overcome the deficiencies of Shipp, Milliken, Gordon, and Sahami. More specifically, Woitaszek discloses “[e]ach message [i]s parsed to completely remove any headers, attachments, HTML markup, punctuation, and extended characters. This procedure essentially reduces a mail message to a series of delimited lowercase string tokens” (page 2, section 4). However, Woitaszek fails to even suggest “removing logic configured to remove the searched non-displaying characters, including non-displaying comments and the non-displaying control characters” as recited in claim 23, as amended. Thus, for at least the reason that none of the references disclose or suggest all of the claimed elements, the combination of references does not render obvious claim 23. For at least these reasons, claim 23, as amended, is allowable.

D. Claim 24 is Allowable Over Shipp, Milliken, Sahami, Woitaszek, and Gordon

Shipp in view of Milliken, Sahami, Woitaszek, and Gordon fail to disclose, teach, or suggest all of the elements of claim 24. More specifically, claim 24 recites:

A system comprising:
means for receiving an email message comprising an SMTP email address, a domain name corresponding to the SMTP email address, and an attachment, the email message further including displaying characters and non-displaying characters;
means for searching for the non-displaying characters in the email;
means for removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters;
means for tokenizing the SMTP email address to generate a token representative of the SMTP email address;
means for tokenizing the attachment to generate a token that is representative of the attachment;
means for tokenizing the domain name to generate a token representative of the domain name;
means for determining a spam probability value from the generated tokens; and
means for sorting the generated tokens in accordance with the corresponding determined spam probability value to determine a predefined number of interesting tokens, the predefined number of interesting tokens being a subset of the generated tokens, wherein only displaying characters are tokenized.

(Emphasis added).

Applicants submit that claim 24, as amended, is allowable over the cited art for at least the reason that none of the references, taken alone or in combination, discloses, teaches, or suggests a “system comprising... means for removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 24, as amended. More specifically, Shipp discloses “[t]he invention is to weed out candidates for logging so that the normal mail is not logged. This reduces the burden on the database 23, and improves performance... A simplistic algorithm would be: If mail contains attachments, do not log” (page 3, paragraphs [0080] – [0081]). However, Shipp fails to even suggest and the Office Action never asserts that Shipp discloses "means for removing the searched non-displaying characters, including the non-
displaying comments and the non-displaying control characters” as recited in claim 24, as amended.

Further, Milliken fails to overcome the deficiencies of Shipp. More specifically, Milliken discloses “a method for detecting transmission of potentially unwanted e-mail messages is provided. The method includes receiving e-mail messages and generating hash values based on one or more portions of the e-mail messages” (paragraph [0010]). However, Milliken fails to even suggest and the Office Action never asserts that Milliken discloses “means for removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 24, as amended.

Further, Gordon fails to overcome the deficiencies of Shipp, and Milliken. More specifically, as cited by the Office Action, Gordon discloses “[t]o facilitate future processing, the electronic mail messages are normalized in operation 704. Such normalization may remove various formatting specific to the protocols associated with electronic mail messages” (column, 9, line 56). As illustrated in this passage, Gordon discloses that formatting that is specific to a protocol may be removed. This has nothing to do with whether that formatting is displayable or non-displayable. Further, Gordon fails to even suggest anything regarding removal of non-displaying comments. Consequently, Gordon fails to even suggest “means for removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 24, as amended.

Additionally, Sahami fails to overcome the deficiencies of Shipp, Milliken, and Gordon. More specifically, Sahami discloses “[determining] whether a message has attached documents (most junk E-mail does not have them)... [is] also [a] powerful distinguisher between junk and legitimate E-mail” (page 3, right column, last paragraph). However, Sahami fails to even suggest and the Office Action never asserts that Sahami discloses “means for removing the
sourced non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 24, as amended.

Further, Woitaszek fails to overcome the deficiencies of Shipp, Milliken, Gordon, and Sahami. More specifically, Woitaszek discloses “[e]ach message [is] parsed to completely remove any headers, attachments, HTML markup, punctuation, and extended characters. This procedure essentially reduces a mail message to a series of delimited lowercase string tokens” (page 2, section 4). However, Woitaszek fails to even suggest “means for removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 24, as amended. Thus, for at least the reason that none of the references disclose or suggest all of the claimed elements, the combination of references does not render obvious claim 24. For at least these reasons, claim 24, as amended, is allowable.

E. Claim 25 is Allowable Over Shipp, Milliken, Sahami, Woitaszek, and Gordon

A computer-readable storage medium that includes a program that, when executed by a computer, performs at least the following:

- receive an email message comprising an SMTP email address, a domain name corresponding to the SMTP email address, and an attachment, the email message further including displaying characters and non-displaying characters;
- search for the non-displaying characters in the email;

remove the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters;

- tokenize the SMTP email address to generate a token representative of the SMTP email address;
- tokenize the attachment to generate a token that is representative of the attachment;
- tokenize the domain name to generate a token representative of the domain name;
- determine a spam probability value from the generated tokens; and

sort the generated tokens in accordance with the corresponding determined spam probability value to determine a predefined number of interesting tokens, the predefined number of interesting tokens being a subset of the generated tokens, wherein only displaying characters are tokenized.

(Emphasis added).

Applicants submit that claim 25, as amended, is allowable over the cited art for at least the reason that none of the references, taken alone or in combination, discloses, teaches, or suggests a “computer-readable storage medium that includes a program that, when executed by a computer, performs at least the following... remove the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 25, as amended. More specifically, Shipp discloses “[t]he invention is to weed out candidates for logging so that the normal mail is not logged. This reduces the burden on the database 23, and improves performance... A simplistic algorithm would be: If mail contains attachments, do not log” (page 3, paragraphs [0080] – [0081]). However, Shipp fails to even suggest and the Office Action never asserts that Shipp discloses “remov[ing] the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 25, as amended.
Further, *Milliken* fails to overcome the deficiencies of *Shipp*. More specifically, *Milliken* discloses a “method for detecting transmission of potentially unwanted e-mail messages is provided. The method includes receiving e-mail messages and generating hash values based on one or more portions of the e-mail messages” (paragraph [0010]). However, *Milliken* fails to even suggest and the Office Action never asserts that *Milliken* discloses “remov[ing] the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 25, as amended.

Further, *Gordon* fails to overcome the deficiencies of *Shipp*, and *Milliken*. More specifically, as cited by the Office Action, *Gordon* discloses “[t]o facilitate future processing, the electronic mail messages are normalized in operation 704. Such normalization may remove various formatting specific to the protocols associated with the electronic mail messages” (column, 9, line 56). As illustrated in this passage, *Gordon* discloses that formatting that is specific to a protocol may be removed. This has nothing to do with whether that formatting is displayable or non-displayable. Further, *Gordon* fails to even suggest anything regarding removal of non-displaying comments. Consequently, *Gordon* fails to even suggest “remov[ing] the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 25, as amended.

Additionally, *Sahami* fails to overcome the deficiencies of *Shipp*, *Milliken*, and *Gordon*. More specifically, *Sahami* discloses “[determining] whether a message has attached documents (most junk E-mail does not have them)... [is] also [a] powerful distinguisher between junk and legitimate E-mail” (page 3, right column, last paragraph). However, *Sahami* fails to even suggest and the Office Action never asserts that *Sahami* discloses “remov[ing] the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 25, as amended.
Further, Woitaszek fails to overcome the deficiencies of Shipp, Milliken, Gordon, and Sahami. More specifically, Woitaszek discloses “[e]ach message [is] parsed to completely remove any headers, attachments, HTML markup, punctuation, and extended characters. This procedure essentially reduces a mail message to a series of delimited lowercase string tokens” (page 2, section 4). However, Woitaszek fails to even suggest “remov[ing] the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 25, as amended. Thus, for at least the reason that none of the references disclose or suggest all of the claimed elements, the combination of references does not render obvious claim 25. For at least these reasons, claim 25, as amended, is allowable.

F. Claim 30 is Allowable Over Shipp, Milliken, Sahami, Woitaszek, and Gordon

A system comprising:
a memory component that stores at least the following:
    email receive logic configured to receive an email
message comprising an attachment and an address, the email
message further including displaying characters and non-
displaying characters;
    search logic configured to search for the non-displaying
characters in the email;
    remove logic configured to remove the searched non-displaying
characters, including the non-displaying comments and the non-displaying
control characters;
    tokenize logic configured to generate a token
representative of the attachment;
    analysis logic configured to determine a spam
probability value from the generated token; and
    sort logic configured to sort the generated tokens in
accordance with the corresponding spam probability value to
determine a predefined number of interesting tokens, the
predefined number of interesting tokens being a subset of the
generated tokens, wherein only displaying characters are
tokenized.

(Emphasis added).

Applicants submit that claim 30, as amended, is allowable over the cited art for at least
the reason that none of the references, taken alone or in combination, discloses, teaches, or
suggests a “system comprising… remove logic configured to remove the searched non-
displaying characters, including the non-displaying comments and the non-displaying
control characters” as recited in claim 30, as amended. More specifically, Shipp discloses
“[t]he invention is to weed out candidates for logging so that the normal mail is not logged. This
reduces the burden on the database 23, and improves performance… A simplistic algorithm
would be: If mail contains attachments, do not log” (page 3, paragraphs [0080] – [0081]).
However, Shipp fails to even suggest and the Office Action never asserts that Shipp discloses
“remove logic configured to remove the searched non-displaying characters, including
the non-displaying comments and the non-displaying control characters” as recited in
claim 30, as amended.
Further, *Milliken* fails to overcome the deficiencies of *Shipp*. More specifically, *Milliken* discloses a “method for detecting transmission of potentially unwanted e-mail messages is provided. The method includes receiving e-mail messages and generating hash values based on one or more portions of the e-mail messages” (paragraph [0010]). However, *Milliken* fails to even suggest and the Office Action never asserts that *Milliken* discloses “*remove logic configured to remove the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters*” as recited in claim 30, as amended.

Further, *Gordon* fails to overcome the deficiencies of *Shipp*, and *Milliken*. More specifically, as cited by the Office Action, *Gordon* discloses “[t]o facilitate future processing, the electronic mail messages are normalized in operation 704. Such normalization may remove various formatting specific to the protocols associated with the electronic mail messages” (column, 9, line 56). As illustrated in this passage, *Gordon* discloses that formatting that is specific to a protocol may be removed. This has nothing to do with whether that formatting is displayable or non-displayable. Further, *Gordon* fails to even suggest anything regarding removal of non-displaying comments. Consequently, *Gordon* fails to even suggest “*remove logic configured to remove the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters*” as recited in claim 30, as amended.

Additionally, *Sahami* fails to overcome the deficiencies of *Shipp*, *Milliken*, and *Gordon*. More specifically, *Sahami* discloses “[determining] whether a message has attached documents (most junk E-mail does not have them)... [is] also [a] powerful distinguisher between junk and legitimate E-mail” (page 3, right column, last paragraph). However, *Sahami* fails to even suggest and the Office Action never asserts that *Sahami* discloses “*remove logic configured*
to remove the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters" as recited in claim 30, as amended.

Further, Woitaszek fails to overcome the deficiencies of Shipp, Milliken, Gordon, and Sahami. More specifically, Woitaszek discloses “[e]ach message [is] parsed to completely remove any headers, attachments, HTML markup, punctuation, and extended characters. This procedure essentially reduces a mail message to a series of delimited lowercase string tokens” (page 2, section 4). However, Woitaszek fails to even suggest “remove logic configured to remove the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 30, as amended. Thus, for at least the reason that none of the references disclose or suggest all of the claimed elements, the combination of references does not render obvious claim 30. For at least these reasons, claim 30, as amended, is allowable.

G. Claim 31 is Allowable Over Shipp, Milliken, Sahami, Woitaszek, and Gordon

A system comprising:
means for receiving an email message comprising an attachment and an address, the email message further including displaying characters and non-displaying characters;
means for searching for the non-displaying characters in the email;

**means for removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters:**
means for generating a token representative of the attachment;
means for determining a spam probability value from the generated token; and
means for sorting the generated tokens in accordance with the corresponding determined spam probability value to determine a predefined number of interesting tokens, the predefined number of interesting tokens being a subset of the generated tokens, wherein only displaying characters are tokenized.

*(Emphasis added).*

Applicants submit that claim 31, as amended, is allowable over the cited art for at least the reason that none of the references, taken alone or in combination, discloses, teaches, or suggests a “system comprising… **means for removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters**” as recited in claim 31, as amended. More specifically, *Shipp* discloses “[t]he invention is to weed out candidates for logging so that the normal mail is not logged. This reduces the burden on the database 23, and improves performance… A simplistic algorithm would be: If mail contains attachments, do not log” (page 3, paragraphs [0080] – [0081]).

However, *Shipp* fails to even suggest and the Office Action never asserts that *Shipp* discloses “**means for removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters**” as recited in claim 31, as amended.

Further, *Milliken* fails to overcome the deficiencies of *Shipp*. More specifically, *Milliken* discloses a “method for detecting transmission of potentially unwanted e-mail messages is provided. The method includes receiving e-mail messages and generating hash values based
on one or more portions of the e-mail messages” (paragraph [0010]). However, Milliken fails to even suggest and the Office Action never asserts that Milliken discloses “means for removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 31, as amended.

Further, Gordon fails to overcome the deficiencies of Shipp, and Milliken. More specifically, as cited by the Office Action, Gordon discloses “[t]o facilitate future processing, the electronic mail messages are normalized in operation 704. Such normalization may remove various formatting specific to the protocols associated with the electronic mail messages” (column, 9, line 56). As illustrated in this passage, Gordon discloses that formatting that is specific to a protocol may be removed. This has nothing to do with whether that formatting is displayable or non-displayable. Further, Gordon fails to even suggest anything regarding removal of non-displaying comments. Consequently, Gordon fails to even suggest “means for removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 31, as amended.

Additionally, Sahami fails to overcome the deficiencies of Shipp, Milliken, and Gordon. More specifically, Sahami discloses “[determining] whether a message has attached documents (most junk E-mail does not have them)... [is] also [a] powerful distinguisher between junk and legitimate E-mail” (page 3, right column, last paragraph). However, Sahami fails to even suggest and the Office Action never asserts that Sahami discloses “means for removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 31, as amended.

Further, Woitaszek fails to overcome the deficiencies of Shipp, Milliken, Gordon, and Sahami. More specifically, Woitaszek discloses “[e]ach message [is] parsed to completely remove any headers, attachments, HTML markup, punctuation, and extended characters. This procedure essentially reduces a mail message to a series of delimited lowercase string tokens”
(page 2, section 4). However, Woitaszek fails to even suggest "means for removing the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters" as recited in claim 31, as amended. Thus, for at least the reason that none of the references disclose or suggest all of the claimed elements, the combination of references does not render obvious claim 31. For at least these reasons, claim 31, as amended, is allowable.

H. Claim 32 is Allowable Over Shipp, Milliken, Sahami, Woitaszek, and Gordon

The Office Action indicates that claim 32 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent Publication Number 2004/0093384 ("Shipp") in view of U.S. Patent Publication Number 2004/0073617 ("Milliken") further in view of A Bayesian Approach to Filtering Junk E-Mail ("Sahami") further in view of Identifying Junk Electronic Mail In Microsoft Outlook with a Support Vector Machine ("Woitaszek"), and U.S. Patent Number 6,732,157 ("Gordon"). Applicants respectfully traverse this rejection for at least the reason that Shipp in view of Milliken, Sahami, Woitaszek, and Gordon fail to disclose, teach, or suggest all of the elements of claim 32. More specifically, claim 32 recites:
A computer-readable storage medium that includes a program that, when executed by a computer, performs at least the following:

1. receive an email message comprising an attachment and an address, the email message further including displaying characters and non-displaying characters;
2. search for the non-displaying characters in the email;
3. remove the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters;
4. generate a token representative of the attachment;
5. determine a spam probability value from the generated token; and
6. sort the generated tokens in accordance with the corresponding determined spam probability value to determine a predefined number of interesting tokens, the predefined number of interesting tokens being a subset of the generated tokens, wherein only displaying characters are tokenized.

*(Emphasis added).*

Applicants submit that claim 32, as amended, is allowable over the cited art for at least the reason that none of the references, taken alone or in combination, discloses, teaches, or suggests a “computer-readable storage medium that includes a program that, when executed by a computer, performs at least the following... remove the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 32, as amended. More specifically, Shipp discloses “[t]he invention is to weed out candidates for logging so that the normal mail is not logged. This reduces the burden on the database 23, and improves performance... A simplistic algorithm would be: If mail contains attachments, do not log” (page 3, paragraphs [0080] – [0081]). However, Shipp fails to even suggest and the Office Action never asserts that Shipp discloses “remove the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 32, as amended.

Further, Milliken fails to overcome the deficiencies of Shipp. More specifically, Milliken discloses a “method for detecting transmission of potentially unwanted e-mail messages is provided. The method includes receiving e-mail messages and generating hash values based
on one or more portions of the e-mail messages” (paragraph [0010]). However, *Milliken* fails to even suggest and the Office Action never asserts that *Milliken* discloses “remove the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 32, as amended.

Further, *Gordon* fails to overcome the deficiencies of *Shipp*, and *Milliken*. More specifically, as cited by the Office Action, *Gordon* discloses “[t]o facilitate future processing, the electronic mail messages are normalized in operation 704. Such normalization may remove various formatting specific to the protocols associated with the electronic mail messages” (column, 9, line 56). As illustrated in this passage, *Gordon* discloses that formatting that is specific to a protocol may be removed. This has nothing to do with whether that formatting is displayable or non-displayable. Further, *Gordon* fails to even suggest anything regarding removal of non-displaying comments. Consequently, *Gordon* fails to even suggest “remove the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 32, as amended.

Additionally, *Sahami* fails to overcome the deficiencies of *Shipp*, *Milliken*, and *Gordon*. More specifically, *Sahami* discloses “[determining] whether a message has attached documents (most junk E-mail does not have them)... [is] also [a] powerful distinguisher between junk and legitimate E-mail” (page 3, right column, last paragraph). However, *Sahami* fails to even suggest and the Office Action never asserts that *Sahami* discloses “remove the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters” as recited in claim 32, as amended.

Further, *Woitaszek* fails to overcome the deficiencies of *Shipp*, *Milliken*, *Gordon*, and *Sahami*. More specifically, *Woitaszek* discloses “[e]ach message [is] parsed to completely remove any headers, attachments, HTML markup, punctuation, and extended characters. This procedure essentially reduces a mail message to a series of delimited lowercase string tokens”
(page 2, section 4). However, Woltaaszek fails to even suggest “**remove the searched non-displaying characters, including the non-displaying comments and the non-displaying control characters**” as recited in claim 32, as amended. Thus, for at least the reason that none of the references disclose or suggest all of the claimed elements, the combination of references does not render obvious claim 32. For at least these reasons, claim 32, as amended, is allowable.

I. **Claim 39 is Allowable Over Shipp, Devine, Milliken, Anderson, Uuencode and MIME FAQ, Gordon, Sahami, Woitaszek, and Burdick**

J. **Claims 11 -14, 16, 17, 19 - 22, 26 - 29, 33 - 38 are Allowable Over Shipp, Milliken, Sahami, Woitaszek, and Gordon**

The Office Action indicates that claims 11 -14, 16, 17, 19 - 22, 26 - 29, 33 - 38 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent Publication Number 2004/0093384 ("Shipp") in view of U.S. Patent Publication Number 2004/0073617 ("Milliken") further in view of A Bayesian Approach to Filtering Junk E-Mail ("Sahami") further in view of Identifying Junk Electronic Mail In Microsoft Outlook with a Support Vector Machine ("Woitaszek"), and U.S. Patent Number 6,732,157 ("Gordon"). Applicants respectfully traverse this rejection for at least the reason that Shipp in view of Milliken, Sahami, Woitaszek, and Gordon fail to disclose, teach, or suggest all of the elements of claims 11 -14, 16, 17, 19 - 22, 26 - 29, 33 - 38. More specifically, dependent claims 11 - 14, 16, 17, and 19 - 22 are allowable for at least the reason that these claims depend from and include the elements of allowable independent claim 6. Dependent claims 26 - 29 are allowable for at least the reason that they depend from and include the elements of allowable independent claim 25. Further, dependent claims 33 - 38 are allowable for at least the reason that they depend from and include the elements of allowable independent claim 32. *In re Fine, Minnesota Mining and Mfg.Co. v. Chemque, Inc.*, 303 F.3d 1294, 1299 (Fed. Cir. 2002).
CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, all objections and/or rejections have been traversed, rendered moot, and/or addressed, and that the now pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested.

Any other statements in the Office Action that are not explicitly addressed herein are not intended to be admitted. In addition, any and all findings of inherency are traversed as not having been shown to be necessarily present. Furthermore, any and all findings of well-known art and Official Notice, or statements interpreted similarly, should not be considered well-known for the particular and specific reasons that the claimed combinations are too complex to support such conclusions and because the Office Action does not include specific findings predicated on sound technical and scientific reasoning to support such conclusions.

If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

/afb/

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