R66337.A03   90/009,155

Since Allen does not disclose or teach "an electronic message," *i.e.*, a non-interactive

electronic message," Allen cannot disclose or teach "classifying the electronic message."

Further, Allen does not disclose or teach this step for the following reasons.

The Present Patent specification, at column 2, lines 40-62, describes Allen as follows:

> A help desk application utilizing a case based reasoning system,
> see U.S. Pat. No. 5,581,664 to Allen et al., has been described
> which compares an incoming set of facts (a "Problem") with a
> stored set of exemplar cases (a case base). The system then
> performs the same action for the problem as was performed in
> connection with the stored case. The case base is stored in the form
> of case attributes representing past "problems." The case attributes
> are compared to the facts of the incoming problem using trigram
> character matching to obtain a set of prior cases which may be
> useful in formulating an appropriate action.

> Unfortunately, the help desk application described in U.S. Pat. No.
> 5,581,664 has several drawbacks. **For example, a user must
> interact with the system to narrow down the results of the case
> base search to obtain the "best" case match. Consequently, the
> system would not provide satisfactory results if the input to the
> system was an electronic message and no user interaction was
> provided. Further, the system is not capable of automatically
> responding to the sender of an electronic message**. **Indeed, a
> representative or the user must interactively interpret the set
> of cases retrieved from the case base to obtain a response to the
> "problem."**

The first of the underlined sentences above explains that Allen is concerned only with

interactive components and not a non-interactive electronic message, as required in the claims of

the Present Patent.

The second underlined sentence above explains that Allen does not relate to, nor can its

system operate with, an electronic message, and that Allen's system cannot operate without user

interactions.

Finally, the third underlined sentence above explains that Allen is not capable of

automatically responding to the sender of the electronic message. Accordingly, Allen cannot

11

disclose or teach that an electronic message can be responded to automatically. Since Allen's system cannot do this, and Allen's system requires interactive interpretation by a representative (see the last underlined sentence above), Allen's system would not need to differentiate a situation when assistance from a human operator is required versus a situation when assistance from a human operator is not required (or an electronic message can be responded to automatically). Accordingly, there is no classification of both situations in Allen. Thus, Allen does not disclose or teach limitation (c) of claim 1, namely "classifying the electronic message as at least one of (i) being able to be responded to **automatically**; and (ii) requiring assistance from a human operator."

The Present Patent specification, at column 4, lines 57-65, discloses that the Present Patent is distinct from Allen such that it overcomes the drawbacks of Allen as follows:

> Unlike the help desk application of U.S. Pat. No. 5,581,664
> described above, in the instant invention the data of the electronic
> message 11 is **delivered to the automatic message interpreting
> and routing system 1 in a non-interactive manner**. Specifically,
> the customer 50 transmits a non-interactive electronic message 11
> to the system 1. This non-interactive transmission of electronic
> messages prescribes that the customer 50 need not later provide
> additional input to assist the system 1.

The Examiner, at pages 4 and 5 of the Office Action, asserted that Allen, at column 9, lines 21-50, discloses the limitations recited in step (c) of claim 1.

However, Allen, at column 9, lines 26-29, states "The action 309 which the application 601 performs is to provide an advice message 607 to **the customer service representative 602**, who may then provide advice to **the customer 604**."

Allen's system does not automatically respond to the customer, but requires a customer service representative who responds to the customer. This passage and the entirety of Allen's disclosure are deficient with respect to the claimed limitations as discussed above.

Allen does not teach or suggest classifying the electronic message as at least one of (i) being able to be responded to **automatically**; and (ii) requiring assistance from a human operator.

For at least the reasons given above, reconsideration and withdrawal of the rejection of claim 1 under 35 U.S.C.§102 is respectfully requested.

Claim 2

Claim 2 recites "...retrieving one or more predetermined responses from a repository for **automatic delivery to the source** when **the classification** step indicates that the electronic message can be responded to **automatically**."

Initially, the Examiner alleges that "Allen demonstrated all the elements as disclosed in claim 1." This allegation is incorrect for the reasons given above.

The Examiner, at pages 5 and 6 of the Office Action, further asserted that Allen, at column 9, lines 7-11, discloses the specific limitations recited in claim 2.

However, Allen, at column 9, lines 26-29, states, "The action 309 which the application 601 performs is to provide an advice message 607 to **the customer service representative 602**, who may then provide advice to **the customer 604**."

Contrary to the Examiner's assertion, Allen's system does not automatically respond to a customer (source), but it needs a customer service representative who responds to the customer (source).

Allen does not disclose the classifying step (c) of claim 1, and hence, Allen cannot meet the condition required in claim 2 of "when the classification step indicates... ."

Thus, Allen neither teaches nor suggests "retrieving one or more predetermined responses from a repository for automatic delivery to the source when the classification step indicates that the electronic message can be responded to automatically."

For the reasons above, Allen does not meet the elements of claim 2, and withdrawal of the rejection of claim 2 is respectfully requested.

Claim 3

Claim 3 recites, in part, "...retrieving one or more predetermined responses from a repository, the predetermined responses **being proposed for delivery to the source**."

The Examiner, at pages 6 and 7 of the Office Action, asserted that Allen, at column 9, lines 21-50, discloses the limitations of claim 1 from which claim 3 depends, and also that Allen discloses the specific limitations of claim 3. Patent Owner urges that the Examiner is incorrect on both assertions.

As for the specific limitations of claim 3, Allen, at column 9, lines 26-29, states, "The action 309 which the application 601 performs is to provide an advice message 607 to **the customer service representative 602**, who may then provide advice to **the customer 604**."

In other words, Allen discloses providing an advice with respect to a customer problem through the customer service representative.

Thus, Allen does not teach or suggest **proposing** the predetermined responses **for delivery to the source.**

Claim 3 further recites, in part, "...forwarding the electronic message and the predetermined response to the human operator when the classification step indicates that a response to the electronic message requires assistance from a human operator."

The Examiner, at pages 7 and 8 of the Office Action, asserted that, Allen, at column 9, lines 30-50, discloses these limitations.

Allen, at column 9, lines 33-37, states, "The application 601 may present a set of questions 609 from the question-answer pairs 608 to the customer service representative 602, who would provide a set of answers 610 to the application 601 (typically by asking the customer 604)."

Allen discloses presenting a set of questions to a customer and providing answers from the customer and, hence, Allen does not teach or suggest "forwarding the electronic message and the predetermined response to the human operator when the classification step indicates that a response to the electronic message requires assistance from a human operator."

For the reasons above, withdrawal of the rejection of claim 3 is respectfully requested.

Claim 4

Claim 4 recites, in part, "...categorizing the electronic message into at least one of a plurality of sub-categories based on subject matter content of the electronic message."

The Examiner, at pages 8 and 9 of the Office Action, asserted that Allen, at column 7, lines 8-18, discloses these limitations, and that Allen demonstrated the elements of claim 1 as well. Patent Owner disagrees with the Examiner.

Allen, at column 7, lines 8-18, states:

> In a preferred embodiment, the inference engine 111 for the case-based reasoning system 101 may be implemented within a rule-based reasoning system 501, such as the ART-IM rule-based reasoning system, manufactured by Inference Corporation of El Segundo, Calif. In the rule-based reasoning system 501, rules 103 may be matched against software objects 112, including a set of facts 502, cases 105 and the case template 312, and may perform procedural actions on them. Software objects 112 may comprise

data elements and relations to other software objects 112, as is well known in the art.

First, Allen does not teach or suggest an electronic message or a non-interactive electronic message as this element is properly construed in the Present Patent claims, as discussed above.

Allen does not disclose anything pertaining to categorizing an electronic message into sub-categories based on subject matter.

Thus, Allen does not teach or suggest "categorizing the electronic message into at least one of a plurality of sub-categories based on subject matter content of the electronic message."

For the reasons above, withdrawal of the rejection of claim 4 is urged to be proper.

Claim 11

Claim 11 recites "...classifying the electronic message as at least one of (i) being able to be responded to automatically; (ii) requiring a first level of assistance from a human operator; and (iii) requiring a second level of assistance from a human operator."

The Examiner, at pages 9 and 10 of the Office Action, asserted that Allen, at column 9, lines 21-50, discloses these limitations, as well as that Allen discloses the elements of claim 1. These assertions are not correct.

Allen, at column 9, lines 26-29, states, "The action 309 which the application 601 performs is to provide an advice message 607 to **the customer service representative 602**, who may then provide advice to **the customer 604**."

Allen's system does not automatically respond to a client or customer, but it needs a customer service representative as an intermediary who responds to the client or customer.

Contrary to the Examiner's assertion, Allen does not teach or suggest classifying the electronic message as being able to be responded to **automatically**. Furthermore, Allen does not disclose anything pertaining to requiring **a first level of assistance** from a human operator or requiring **a second level of assistance** from a human operator.

Additionally, since Allen does not teach the classification step of claim 1 as discussed above, the arguments provided above with respect to claim 2 apply equally here.

For the reasons above, reconsideration and withdrawal of the rejection of claim 11 is respectfully requested.

Claim 12

Claim 12 recites, in part, "...retrieving one or more predetermined responses from a repository, the predetermined responses **being proposed for delivery to the source**."

The Examiner, at pages 10 and 11 of the Office Action, asserted Allen discloses the element of claim 11 and that Allen, at column 9, lines 21-29 and column 9, lines 7-11, discloses the limitations of claim 12.

Allen, at column 9, lines 26-29, states, "The action 309 which the application 601 performs is to provide an advice message 607 to **the customer service representative 602**, who may then provide advice to **the customer 604**."

In other words, Allen discloses providing an advice with respect to a customer problem through the customer service representative.

Allen does not teach or suggest retrieving one or more predetermined responses from a repository, the predetermined responses **being proposed for delivery to the source**.

Claim 12 further recites, in part, "...delivering the predetermined response **to the source** when the human operator deems the response appropriate."

The Examiner, at page 11, asserted that Allen, at column 9, lines 26-29, discloses these limitations.

Allen, at column 9, lines 26-29, states, "The action 309 which the application 601 performs is to provide an advice message 607 to **the customer service representative 602**, who may then provide advice to **the customer 604**."

Allen discloses providing an advice message (answer to a customer problem) to the customer service representative, not to a customer. This passage discloses that Allen's customer service representative can receive an advice message 607 and can use information from that advice message to provide advice via the telephone to a customer. However, it is not disclosed by Allen that a non-interactive electronic message is sent by the customer.

Thus, Allen does not teach or suggest delivering the predetermined response **to the source** when the human operator deems the response appropriate.

Additionally, claim 12 requires the condition of the classification step of claim 11 for steps (d), (e) and (f). Since Allen does not disclose a classification step as discussed for claim 11 above, therefore, Allen cannot meet the requirements of claim 12.

For at least the reasons above, withdrawal of the rejection of claim 12 is respectfully requested.

Claim 13

Claim 13 recites, in part, "...retrieving one or more predetermined remarks from a remarks repository to assist the human operator in processing the electronic message manually."

The Examiner, at page 12 of the Office Action, asserted that Allen discloses the elements of claim 11 and that Allen, at column 9, lines 30-41, discloses the limitations of claim 13. Patent Owner disagrees with these assertions.

Allen, at column 9, lines 33-37, states, "The application 601 may present a set of questions 609 from the question-answer pairs 608 to the customer service representative 602, who would provide a set of answers 610 to the application 601 **(typically by asking the customer 604)**."

As such, Allen teaches presenting a set of questions to the customer service representative in order to ask the customer questions and to obtain answers therefrom. These questions and elicitation of answers do not relate to "remarks" that are used "to assist [a] human operator in processing the electronic message," as claimed. Further, Allen does not teach or suggest that the service representative manually processes a non-interactive electronic message.

Thus, Allen does not teach or suggest retrieving one or more predetermined remarks from a remarks repository to assist the human operator in manually processing a non-interactive electronic message.

For the reasons above, withdrawal of the rejection of claim 13 is respectfully urged to be proper.

Claim 15

Claim 15 recites "...the electronic message is received over an electronic data communications channel."

The Examiner, at pages 12 and 13 of the Office Action, asserts that Allen discloses the elements of claim 1 and that Allen, at column 3, lines 25-28; column 3, lines 61-63; and column 9, lines 7-10, discloses the limitations of claim 15.

Allen, at column 9, lines 7-10, states that "In the automated help desk application 601, the user 119 may comprise a customer service representative 602, who may typically be receiving **a telephone call** 603 from a customer 604. A set of customer problems 605 and advice to respond with may be stored as cases 105."

Allen discloses receiving a customer problem through a phone call.

Allen does not teach or suggest, in any of the above-mentioned passages or throughout its entire disclosure, receiving a non-interactive electronic message over an electronic data communications channel. Accordingly, withdrawal of the rejection of claim 15 is respectfully requested.

Claim 22

Claim 22 recites "...the predetermined response is altered in accordance with the interpretation of the electronic message before delivery to the source."

The Examiner, at page 13 of the Office Action, asserted that Allen discloses the elements of claim 1 and that Allen, at column 9, lines 26-29, discloses the limitations of claim 22.

Allen, at column 9, lines 26-29, states, "The action 309 which the application 601 performs is to provide an advice message 607 to the customer service representative 602, who may then provide advice to the customer 604."

In Allen's method, the customer service representative does not alter the advice message before providing advice (via over the phone) to the customer. Furthermore, as discussed above,

although the passage might suggest that advice is given to the customer over the phone based on the advice message that a customer representative receives, the passage does not suggest that the advice message itself is delivered to the customer.

Allen does not teach or suggest the elements of claim 1, as discussed above, nor does Allen teach or suggest that "the predetermined response is altered in accordance with the interpretation of the electronic message before delivery to the source."

For these reasons, withdrawal of the rejection of claim 22 is respectfully urged.

Claim 23

Claim 23 recites "...the electronic message includes fixed data."

Also, the present specification, at column 11, lines 58-64, discloses that "The system for automatically interpreting an incoming electronic message 1 is capable of interpreting electronic messages 11 which contain data in a predetermined arrangement, so-called fixed data electronic messages. An electronic message having fixed data may have the message content (i.e., the customer name, address, message content, etc.) in predetermined positions in the message."

The Examiner, at page 13 of the Office Action, asserted that Allen discloses the limitations of claim 1 and that Allen discloses, at column 3, lines 66 to column 4, line 1 and column 9, lines 16-29, discloses the limitations of claim 23. Patent Owner disagrees with the Examiner.

Allen, at column 9, lines 18-20, states, "In the description step 201, the application 601 may retrieve a text string description 606 of the customer problem 605."

In other words, "**a text string description**" does not relate to the claimed "**fixed data**" as defined above in the specification of the Present Patent. Neither the other cited passage nor the

rest of Allen's disclosure makes up for this deficiency, or for the deficiency of Allen with respect to claim 1.

Allen does not teach or suggest the limitations of claim 23, including that "the electronic message includes fixed data." Withdrawal of the rejection of claim 23 is respectfully submitted.

Claim 24

Claim 24 recites "...the electronic message includes variable data."

Also, the Present Patent specification, at column 11, line 65 to column 12, lines 3, discloses that "The system for automatically interpreting an incoming electronic message 1 is also capable of interpreting electronic messages 11 which contain data in variable arrangements, so-called variable data. Such electronic messages having variable data may have the message content in any arrangement."

The Examiner, at page 14 of the Office Action, asserted that Allen, at column 4, lines 7-10 and column 9, lines 33-41, discloses these limitations.

Allen, at column 9, lines 33-37, states, "The application 601 may present a set of questions 609 from the question-answer pairs 608 to the customer service representative 602, who would provide a set of answers 610 to the application 601 (typically by asking the customer 604)."

As such, this cited passage above does not disclose variable data as defined in the Present Patent specification. Neither the other cited passage nor the rest of Allen's disclosure makes up for this deficiency in Allen.

Thus, Allen does not teach or suggest that "the electronic message includes variable data," and withdrawal of the rejection of claim 24 is respectfully submitted.

Claim 26

Independent claim 26 recites, in part, "...receiving the electronic message from a source" and "interpreting the electronic message using a rule base and case base knowledge engine."

Allen does not teach or suggest these limitations as discussed above regarding claim 1.

Claim 26 further recites, in part, "...retrieving one or more predetermined responses corresponding to the interpretation of the electronic message from a repository **for automatic delivery to the source**."

The Examiner, at page 16 of the Office Action, asserted that Allen, at column 9, lines 7-11 and column 9, lines 21-29, discloses these limitations.

Allen, at column 9, lines 26-29, states, "The action 309 which the application 601 performs is to provide an advice message 607 to **the customer service representative 602**, who may then provide advice to **the customer 604**."

Allen discloses indirectly providing advice to the customer through the customer service representative. The deficiencies of this cited paragraph and the arguments provided therefor were discussed above and apply equally here. Neither the other cited passage nor the rest of Allen's disclosure makes up for these deficiencies.

It is submitted that Allen does not teach or suggest any of the limitations of claim 26 including "retrieving one or more predetermined responses corresponding to the interpretation of the electronic message from a repository **for automatic delivery to the source**."

For at least the reasons above, withdrawal of the rejection of claim 26 is respectfully requested.

Claim 27

Claim 27 recites "the source of the electronic message is not predetermined."

The Examiner alleges that Allen discloses all of the elements of claim 26, and further, that Allen discloses the specific limitation recited in claim 27. Patent Owner disagrees with the Examiner's assertion.

Claim 27 is patentable over Allen since Allen neither teaches nor discloses the elements of claim 26 or claim 27 for the reasons given above.

Claim 28

Claim 28 recites, in part, "...(b1) classifying the electronic message as at least one of (i) being able to be responded to **automatically**; and (ii) requiring assistance from a human operator; and (c) retrieving one or more predetermined responses corresponding to the interpretation of the electronic message from a repository for **automatic delivery** to the source when the classification step indicates that the electronic message can be responded to **automatically**."

The Examiner, at pages 17 and 18 of the Office Action, asserts that Allen meets the elements of claim 26 and that Allen, at column 9, lines 21-50, discloses the limitations of claim 28.

Allen, at column 9, lines 26-29, states, "The action 309 which the application 601 performs is to provide an advice message 607 to **the customer service representative 602**, who may then provide advice to **the customer 604**."

This disclosure simply teaches providing advice over the phone to the customer through the customer service representative. The deficiencies of this cited paragraph and the arguments provided therefor were discussed above and apply equally here.

Allen does not teach or suggest the limitations of claim 26, nor does Allen teach or suggest the limitation recited in claim 28 for the reasons given above. Withdrawal of the rejection of claim 28 is respectfully urged to be proper.

Claim 29

Claim 29 recites, in part, "...(b3) **flagging the attributes of the case model** which are detected in the electronic message."

The Examiner, at pages 20 and 21 of the Office Action, asserted that Allen discloses that element of claim 28 and that Allen, at column 6, lines 53-57 and column 5, lines 3-15, discloses the limitations of claim 29.

Patent Owner traverses these assertions.

Allen, at column 6, lines 53-57, states, "In a preferred embodiment, string matching, word matching and character matching are assigned weights, and the evaluation 316 of the text string match may be determined by a weighted sum of the evaluations 316 for each type of match."

Allen's **assigning weights** to string matching, word matching and character matching, as described in column 6, lines 53-57, does not teach or suggest "**flagging the attributes of the case model** which are detected in the electronic message." Neither column 5, lines 3-15 nor the remainder of Allen's entire disclosure meets this limitation, or any of the limitations of claim 29.

Claim 29 further recites, in part, "...(b4) classifying the electronic-message as at least one of (i) being able to be responded to **automatically**; and (ii) requiring assistance from a human operator, the classification being performed in accordance with the flagged attributes."

The Examiner, at pages 21-23 of the Office Action, asserted that Allen, at column 5, lines 3-26; column 8, lines 12-28; column 9, lines 21-50; and in FIG. 6, discloses these limitations.

Allen, at column 9, lines 26-29, states, "The action 309 which the application 601 performs is to provide an advice message 607 to **the customer service representative 602**, who may then provide advice to **the customer 604**."

This disclosure in Allen teaches providing advice over the phone to the customer through the customer service representative. Allen does not disclose flagged attributes as discussed above. Patent Owner submits that the other passages cited by the Examiner and the rest of Allen's disclosure are deficient with respect to this claimed limitation, as well as the limitations of claim 28.

It is submitted that Allen does not teach or suggest "classifying the electronic-message as at least one of (i) being able to be responded to **automatically**; and (ii) requiring assistance from a human operator, the classification being performed in accordance with the **flagged attributes**."

For the reasons stated above, withdrawal of the rejection of claim 29 is respectfully requested.

Claim 30

Claim 30 recites, in part, "...(b3) flagging the attributes of the case model which are detected in the electronic message."

The Examiner, at page 25 of the Office Action, asserted that Allen, at column 6, lines 53-57, and column 5, lines 3-15, discloses these limitations.

Allen, at column 6, lines 53-57, states, "In a preferred embodiment, string matching, word matching and character matching are assigned weights, and the evaluation 316 of the text string match may be determined by a weighted sum of the evaluations 316 for each type of match."

Patent Owner submits that Allen's **assigning weights** to string matching, word matching and character matching does not teach or suggest "**flagging the attributes of the case model** which are detected in the electronic message."

Claim 30 further recites, in part, "...(b4) comparing the flagged attributes of the case model with stored attributes of stored case models of the case base."

The Examiner, at pages 25 and 26 of the Office Action, asserted that Allen, at column 5, lines 3-26, discloses these limitations.

As discussed above, because Allen does not disclose **the flagged attributes**, Allen does not teach or suggest "comparing the flagged attributes of the case model with stored attributes of stored case models of the case base."

Claim 30 further recites, in part, "...(b6) **assigning a score** to each stored case model which is compared with the case model, the score **increasing** when at least one of the attributes and the text match the stored case model and the score **not increasing** when at least one of the attributes and the text do not match the stored case model."

The Examiner, at page 27 of the Office Action, asserted that Allen, at column 5, lines 15-26, discloses these limitations.

However, Allen, at column 5, lines 15-26, states as follows:

Cases 105 which are hits may be noted in a match table 314. The cases 105 in the match table 314 may be evaluated for a match quality 315, and the match quality 315 for each case 105 may be recorded in the match table 314. In a preferred embodiment, the inference engine 111 may determine match quality 315 for each case 105 in the match table 314 by a weighted sum of an evaluation 316 of those attribute-value pairs 303 which are matched. In a preferred embodiment, the weights assigned to each attribute-value pair 303 may be predetermined and may be altered by the user 119.

This cited passage discloses a match quality, but does not disclose assigning a score to the cases in the match table.

Thus, Allen does not disclose "assigning a score to each stored case model which is compared with the case model, the score increasing when at least one of the attributes and the text match the stored case model and the score not increasing when at least one of the attributes and the text do not match the stored case model."

For at least the reasons above, with respect to claim 30 as well as all of the above arguments against the applicability of Allen, Patent Owner urges the withdrawal of the rejection of claim 30.

Claim 31

Claim 31 recites, in part, "...when at least one of the attributes and the text match the stored case model, the score is increased by a predetermined match weight; and when at least one of the attributes and the text does not match the stored case model, the score is decreased by a predetermined mismatch weight."

The Examiner, at pages 27 and 28 of the Office Action, alleged that Allen discloses the elements of claim 30 and that Allen, at column 5, lines 15-26, discloses the limitations of claim 31.

Allen, at column 5, lines 15-26, states the following:

> Cases 105 which are hits may be noted in a match table 314. The
> cases 105 in the match table 314 may be evaluated for a match
> quality 315, and the match quality 315 for each case 105 may be
> recorded in the match table 314. In a preferred embodiment, the
> inference engine 111 may determine match quality 315 for each
> case 105 in the match table 314 by a weighted sum of an
> evaluation 316 of those attribute-value pairs 303 which are
> matched. In a preferred embodiment, the weights assigned to each
> attribute-value pair 303 may be predetermined and may be altered
> by the user 119.

As discussed above for claim 30, this citation from Allen does not disclose assigning a score to the cases in the match table.

Particularly, the Examiner, at page 28 of the Office Action, asserted that "the match quality **inherently** represents an increasing match or decreasing match." Patent Owner urges that match quality might inherently indicate that a value is established to determine match quality, but the match quality described in Allen does not inherently mean that in Allen there is an increasing or decreasing match. As there is no score for comparison of match quality established in Allen, there can be no increasing or decreasing of score, as required in claim 31.

It is submitted that Allen does not teach or suggest explicitly or inherently the limitations recited in claim 31 or claim 30, or in any of the Present Patent claims.

For at least the reasons given above, it is respectfully urged that the rejection of claim 31 should be withdrawn.

Claim 34

Claim 34 recites, in part, "...classifying the electronic message as at least one of (i) being able to be responded to **automatically** and (ii) requiring assistance from a human operator."

The Examiner, at pages 28 and 29 of the Office Action, asserted that Allen discloses the elements of claim 30 and that Allen, at column 9, lines 21-50, discloses the limitations of claim 34.

Allen, at column 9, lines 26-29, states, "The action 309 which the application 601 performs is to provide an advice message 607 to **the customer service representative 602**, who may then provide advice to **the customer 604**."

This teaching by Allen provides indirectly the advice to the customer through the customer service representative. The deficiencies of this passage with respect to this claim limitation were discussed above and the arguments therefor apply equally here.

Patent Owner submits that Allen does not teach or suggest classifying the electronic message as being able to be responded to **automatically** as required by the Present Patent claims.

Claim 34 further recites "the classification of the electronic message being performed **in accordance with the classification of the stored case model having a highest score**."

The Examiner, at page 29, lines 20-22 of the Office Action, alleged that "e.g., if all cases have a low match quality, the application may receive further input, while if cases have a high match quality, advice messages are forwarded to the user."

However, the Examiner did not provide any citation supporting this allegation. If the Examiner wishes to rely on his own testimony, Patent Owner urges that the Examiner provide his testimony in Declaration form, or the Examiner should withdraw this unsupported allegation.

Additionally, this assertion does not teach or suggest anything regarding classifying the electronic message received from a customer in accordance with the classification of the stored case model having a highest score in any case. This assertion merely relates to forwarding

advice messages to the user (service representative) when the stored cases have a high match quality.

It is submitted that Allen does not teach or suggest "the classification of the electronic message being performed **in accordance with the classification of the stored case model having a highest score**."

For the reasons given above, it is respectfully submitted that the rejection of claim 34 should be withdrawn.

Claim 35

Claim 35 recites "...retrieving one or more predetermined responses corresponding to the interpretation of the electronic message from a repository for **automatic delivery to the source** when the classification step indicates that the electronic message can be responded to automatically."

The Examiner, at page 30 of the Office Action, asserted that Allen teaches the elements of claim 34 and that Allen, at column 9, lines 7-11, discloses the limitations of claim 35.

Allen, at column 9, lines 26-29, states, "The action 309 which the application 601 performs is to provide an advice message 607 to **the customer service representative 602**, who may then provide advice to **the customer 604**."

Allen discloses providing advice via the telephone to the customer through the customer service representative. The deficiencies of this passage with respect to this claim limitation were discussed above and the arguments therefor apply equally here.

Allen does not teach or suggest "retrieving one or more predetermined responses corresponding to the interpretation of the electronic message from a repository for **automatic**

delivery to the source when the classification step indicates that the electronic message can be responded to automatically."

For the reasons given above, it is respectfully submitted that the rejection of claim 35 should be withdrawn.

Claim 36

Claim 36 recites, in part, "...the predetermined response **is altered** in accordance with the interpretation of the electronic message before delivery to the source."

The Examiner, at pages 30 and 31 of the Office Action, asserted that Allen discloses the elements of claim 35 and that Allen, at column 9, lines 26-29, discloses the limitations of claim 36.

Allen, at column 9, lines 26-29, states, "The action 309 which the application 601 performs is to provide an advice message 607 to **the customer service representative 602**, who may then provide advice to **the customer 604**."

Nowhere in this passage or anywhere else in the Allen disclosure does Allen teach that the advice message is altered by the customer service representative before delivery to the customer.

Allen does not teach or suggest that "the predetermined response **is altered** in accordance with the interpretation of the electronic message before delivery to the source."

For the reasons given above with respect to both claims 35 and 36, it is respectfully submitted that the rejection of claim 36 is improper and should be withdrawn.

Claim 38

Claim 38 recites "...the predetermined response is altered in accordance the interpretation of the electronic message before delivery to the source."

The Examiner, at page 31 of the Office Action, asserted that Allen discloses the elements of claim 26 and that Allen, at column 9, lines 26-29, discloses the limitations of claim 38.

Allen, at column 9, lines 26-29, states, "The action 309 which the application 601 performs is to provide an advice message 607 to **the customer service representative 602**, who may then provide advice to **the customer 604**."

Nowhere in this passage nor anywhere else in the Allen disclosure is there any disclosure that the advice message is altered by the customer service representative before delivery to the customer.

It is submitted that Allen does not teach or suggest that "the predetermined response **is altered** in accordance with the interpretation of the electronic message before delivery to the source."

For the reasons given above, it is respectfully submitted that the rejection of claim 38 is in error and should be withdrawn.

Claim 39

Claim 39 recites "...the electronic message includes fixed data."

Also, the specification of the Present Patent, at column 11, lines 58-64, discloses that "The system for automatically interpreting an incoming electronic message 1 is capable of interpreting electronic messages 11 which contain data in a predetermined arrangement, so-called fixed data electronic messages. An electronic message having fixed data may have the

message content (i.e., the customer name, address, message content, etc.) in predetermined positions in the message."

The Examiner, at pages 31 and 32 of the Office Action, asserted that Allen discloses the elements of claim 26 and that Allen, at column 3, line 66 to column 4, line 1 and column 9, lines 16-29, discloses the limitations of claim 39.

Allen, at column 9, lines 18-20, states, "In the description step 201, the application 601 may retrieve a text string description 606 of the customer problem 605."

This disclosure of, "**a text string description**" does not relate to the presently claimed "**fixed data**" as defined above in the specification of the Present Patent. Additionally, the other passages cited above and the rest of Allen's disclosure are also deficient with respect to this claimed limitation.

Allen does not teach or suggest that "the electronic message includes fixed data," and therefore, the rejection of claim 39 should be withdrawn.

Claim 40

Claim 40 recites "...the electronic message includes variable data."

Also, the specification of the Present Patent, at column 11, line 65 to column 12, lines 3, discloses that "The system for automatically interpreting an incoming electronic message 1 is also capable of interpreting electronic messages 11 which contain data in variable arrangements, so-called variable data. Such electronic messages having variable data may have the message content in any arrangement."

The Examiner, at page 32 of the Office Action, asserted that Allen discloses the elements of claim 26 and that Allen, at column 4, lines 7-10 and column 9, lines 33-41, discloses the limitations of claim 40.

Allen, at column 9, lines 33-37, states, "The application 601 may present a set of questions 609 from the question-answer pairs 608 to the customer service representative 602, who would provide a set of answers 610 to the application 601 (typically by asking the customer 604)."

As such, this cited passage does not disclose variable data as defined in the specification of the Present Patent. Additionally, the other passage cited above and the rest of Allen's disclosure are also deficient with respect to this claimed limitation.

Allen does not teach or suggest that "the electronic message includes variable data," and accordingly, the rejection of claim 40 should be withdrawn.

Claim 41

Claim 41 recites, in part, "...[a] system for automatically processing a non-interactive electronic message received from a source, the system comprising: a server for transmitting and receiving electronic messages over a communications channel."

The Examiner, at pages 32 and 33 of the Office Action, asserted that Allen, at column 3, lines 36-39; column 3, line 59 to column 4, line 1 and column 9, lines 7-16, discloses these limitations.

Allen, at column 9, lines 7-10, states, "In the automated help desk application 601, the user 119 may comprise a customer service representative 602, who may typically be receiving **a**

telephone call 603 from a customer 604. As set of customer problems 605 and advice to respond with may be **stored** as cases 105."

The Allen disclosure of "receiving a telephone call…from a customer…" does not teach or suggest "transmitting and receiving electronic messages over a communication channel." Additionally, all of the other passages cited above and the rest of Allen's disclosure are also deficient with respect to this claimed limitation.

Claim 41 further recites, in part, "…an inbox storage device for storing incoming electronic messages."

The Examiner, at page 33 of the Office Action, asserted that Allen, at column 3, lines 36-39, discloses these limitations. For similar reasons to those stated above, Allen does not teach or suggest "an inbox storage device for storing incoming electronic messages."

Claim 41 further recites, in part, "…a pre-processor for receiving **the electronic message** and interpreting the electronic message using the rule base; a searching device for searching the electronic message and the case base to retrieve a stored case from the case base which most closely matches **the electronic message**." The electronic message clearly refers to "**a non-interactive electronic message**" as recited in the preamble.

The Examiner, at pages 36-38 of the Office Action, asserted that Allen discloses these limitations.

However, as discussed above regarding claim 1, Allen does not teach or suggest anything pertinent to "a non-interactive electronic message."

Allen does not teach or suggest "a pre-processor for receiving **the electronic message** and interpreting the electronic message using the rule base; a searching device for searching the

electronic message and the case base to retrieve a stored case from the case base which most

closely matches **the electronic message**."

Claim 41 further recites, in part, "...a classifier for classifying the electronic message into

at least one of (i) being able to be responded to **automatically**; and (ii) requiring assistance from

a human operator."

The Examiner, at pages 38 and 39 of the Office Action, asserted that Allen, at column 9,

lines 21-50, discloses these limitations.

Allen, at column 9, lines 26-29, states, "The action 309 which the application 601

performs is to provide an advice message 607 to **the customer service representative 602**, who

may then provide advice to **the customer 604**."

Allen teaches providing advice via the telephone to the customer through the customer

service representative. Accordingly, Allen is deficient with respect to this claim limitation for

the reasons discussed previously for the claims having this same limitation.

It is submitted that Allen does not teach or suggest "a classifier for classifying the

electronic message into at least one of (i) being able to be responded to **automatically**; and (ii)

requiring assistance from a human operator."

For at least the reasons discussed above and throughout this reply, it is urged that the

rejection of claim 41 is in error and should be withdrawn.

Claim 42

Claim 42 recites "...comprising: a repository of predetermined responses, at least one of

the responses being selected from the repository by the knowledge base **for automatic delivery**

to the source when the classifier indicates that the electronic message can be responded to automatically."

The Examiner, at pages 39 and 40, asserted that Allen discloses the elements of claim 41 and that Allen, at column 9, lines 10-11 and column 9, lines 21-29, discloses the limitations of claim 42.

Allen, at column 9, lines 26-29, merely states, "The action 309 which the application 601 performs is to provide an advice message 607 to **the customer service representative 602**, who may then provide advice to **the customer 604**."

Allen discloses only indirectly providing advice to the customer through the customer service representative. Additionally, the other passage cited above and the rest of Allen's disclosure are also deficient with respect to this claimed limitation. Accordingly, Allen is deficient with respect to this claim limitation as well as being deficient for the limitations of claim 41 for the same reasons discussed previously for those claims having this same limitation.

Allen does not teach or suggest "a repository of predetermined responses, at least one of the responses being selected from the repository by the knowledge base **for automatic delivery to the source** when the classifier indicates that the electronic message can be responded to automatically." Allen does not disclose <u>direct</u> communication with or submission to the customer source or the customer source computer.

For the reasons given above, it is respectfully submitted that the rejection of claim 42 is in error and should be withdrawn.

Claim 43

Claim 43 recites "...the predetermined response is altered in accordance the interpretation of the electronic message before delivery to the source."

The Examiner, at page 40 of the Office Action, asserted that Allen discloses the elements of claim 42 and that Allen, at column 9, lines 26-29, discloses the limitations of claim 43.

Allen, at column 9, lines 26-29, states, "The action 309 which the application 601 performs is to provide an advice message 607 to the customer service representative 602, who may then provide advice to the customer 604."

In Allen's method, the customer service representative does not alter the advice message before providing the advice to the customer. Accordingly, Allen is deficient with respect to this claim limitation for the reasons discussed previously for those claims having this same limitation.

Thus, Allen does not teach or suggest that "the predetermined response is altered in accordance the interpretation of the electronic message before delivery to the source."

For the reasons given above, it is respectfully submitted that the rejection of claim 43 is incorrect and should be withdrawn.

Claim 44

Claim 44 recites, in part, "...a repository of predetermined responses, one or more of the predetermined responses being selected by the knowledge base for **proposed delivery to the source**."

The Examiner, at pages 40 and 41 of the Office Action, asserted that Allen discloses the elements of claim 41 and that Allen, at column 9, lines 10-11; column 9, lines 7-11 and column 9, lines 21-29, discloses the limitations of claim 44.

Allen, at column 9, lines 26-29, states, "The action 309 which the application 601 performs is to provide an advice message 607 to **the customer service representative 602**, who may then provide advice to **the customer 604**."

In other words, Allen teaches providing advice with respect to a customer problem through the customer service representative.

Allen does not teach or suggest **proposing** the predetermined responses **for delivery to the source**.

For the reasons given above, it is respectfully submitted that the rejection of claim 44 is improper and should be withdrawn.

Claim 45

Claim 45 recites "the classifier categorizes the electronic message into at least one of a plurality of sub-categories based on subject matter content of the electronic message."

The Examiner, at page 45 of the Office Action, asserted that Allen discloses the elements of claim 44 and that Allen, at column 7, lines 8-18, discloses the limitations of claim 45.

Allen, at column 7, lines 8-18, states:

> In a preferred embodiment, the inference engine 111 for the case-based reasoning system 101 may be implemented within a rule-based reasoning system 501, such as the ART-IM rule-based reasoning system, manufactured by Inference Corporation of El Segundo, Calif. In the rule-based reasoning system 501, rules 103 may be matched against software objects 112, including a set of facts 502, cases 105 and the case template 312, and may perform procedural actions on them. Software objects 112 may comprise

data elements and relations to other software objects 112, as is well known in the art.

In this cited passage, Allen does not disclose anything pertaining to categorizing the electronic message into sub-categories based on subject matter.

Allen does not teach or suggest "the classifier categorizes the electronic message into at least one of a plurality of sub-categories based on subject matter content of the electronic message." Accordingly, Allen is deficient with respect to this claim limitation for the same reasons discussed previously for those claims having this same limitation.

For the reasons given above, it is respectfully submitted that the rejection of claim 45 should be reconsidered and withdrawn.

Claim 52

Claim 52 recites "...the electronic message includes fixed data."

Also, the specification of the Present Patent, at column 11, lines 58-64, discloses that "The system for automatically interpreting an incoming electronic message 1 is capable of interpreting electronic messages 11 which contain data in a predetermined arrangement, so-called fixed data electronic messages. An electronic message having fixed data may have the message content (i.e., the customer name, address, message content, etc.) in predetermined positions in the message."

The Examiner, at page 43 of the Office Action, asserted that Allen discloses the elements of claim 41 and that Allen, at column 3, line 66 to column 4, line 1 and column 9, lines 16-29, discloses the limitations of claim 52.

Allen, at column 9, lines 18-20, states, "In the description step 201, the application 601 may retrieve a text string description 606 of the customer problem 605."