

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

MOUNTECH IP LLC,

Plaintiff,

v.

BLACKBERRY CORPORATION,

Defendant,

and

TCT MOBILE (US), INC.

New-Party Defendant.

Civil Action No.: 1:20-cv-00865

TRIAL BY JURY DEMANDED

FIRST AMENDED COMPLAINT ADDING NEW-PARTY DEFENDANT

Now comes Plaintiff, Mountech IP LLC (“Plaintiff” or “Mountech”), by and through undersigned counsel, and respectfully alleges, states, and prays as follows:

NATURE OF THE ACTION

1. This is an action for patent infringement under the Patent Laws of the United States, Title 35 United States Code (“U.S.C.”), to prevent and enjoin Defendant Blackberry Corporation and New-Party Defendant TCT Mobile (US), Inc. (“TCT”) (collectively, the “Defendants”), from infringing and profiting, in an illegal and unauthorized manner and without authorization and/or consent from Plaintiff, U.S. Patent No. 7,991,784 (the “784 Patent”) and U.S. Patent No. 8,311,805 (the “805 Patent,” and together with the ‘784 Patent, the “Patents-in-Suit”), which are attached respectively as Exhibits A and B and incorporated herein by reference, and pursuant to 35 U.S.C. §271, and to recover damages, attorney’s fees, and costs.

THE PARTIES

2. Plaintiff is a Texas limited liability company with its principal place of business at 6001 W. Parmer Lane, Suite 370-1079, Austin, Texas 78727-3908.

3. Upon information and belief, New-Party Defendant TCT is incorporated in and under the laws of Delaware and may be served with process c/o Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808.

4. Plaintiff is further informed and believes, and on that basis alleges, that Defendants are in the business of designing and/or manufacturing smartphones – that is, mobile telephones capable of performing many functions of a computer and having a touchscreen interface, internet access, and an operating system capable of running downloaded applications – and offering the same for sale to consumers under the Blackberry®, TracFone®, and Alcatel® brands, among other things. Defendants derive a portion of their revenues from sales and distribution via electronic transactions conducted on and using internet websites located at www.blackberrymobile.com/us, www.shop.tracfone.com/shop/en/tracfonestore, and <https://us.alcatelmobile.com/> and their incorporated and/or related systems (individually and collectively, the “Defendant Website”). Plaintiff is informed and believes, and on that basis alleges, that, at all times relevant hereto, Defendants have done and continue to do business in this judicial district, including providing products/services to customers located in this judicial district by way of the Defendant Website.

JURISDICTION AND VENUE

5. This is an action for patent infringement in violation of the Patent Act of the United States, 35 U.S.C. §§1 *et seq.*

6. The Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§1331 and 1338(a).

7. This Court has personal jurisdiction over Defendants by virtue of their systematic and continuous contacts with this jurisdiction and residence in this District, as well as because the injury to Plaintiff and cause of action alleged by Plaintiff arose in this District, as alleged herein.

8. Defendants are subject to this Court's specific and general personal jurisdiction pursuant to their substantial business in this forum, including: (i) committing at least a portion of the infringements alleged herein in this judicial District; (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct, and/or deriving substantial revenue from goods and services provided to individuals in this forum state and in this judicial District; and (iii) incorporating in this District.

9. Venue is proper in this judicial district pursuant to 28 U.S.C. §1400(b), because Defendants are incorporated in this district. See *TC Heartland v. Kraft Foods Group Brands LLC*, 137 S. Ct. 1514 (2017).

FACTUAL ALLEGATIONS

10. On August 2, 2011, the United States Patent and Trademark Office ("USPTO") duly and legally issued the '784 Patent, entitled "Automatic Dynamic Contextual Data Entry Completion System," after a full and fair examination. The '784 Patent is attached hereto as Exhibit A and incorporated herein as if fully rewritten.

11. Plaintiff is the owner of the '784 Patent, having received all right, title and interest in and to the '784 Patent from the previous assignee of record. Plaintiff possesses all rights of recovery under the '784 Patent, including the exclusive right to recover for past infringement.

12. To the extent required, Plaintiff has complied with all marking requirements under 35 U.S.C. § 287 with respect to the '784 Patent.

13. Claim 1 of the '784 Patent recites a method – performed in a character entry system, so that incomplete character strings input by a user interacting with the character entry system, that are part of a series of input character strings which establish a context for the incomplete input character string, can be completed by the selection of a presented character string using an input device connected to the character entry system – comprising computing contextual associations between multiple character strings based upon occurrence of character strings relative to each other in documents present in the character entry system, wherein the computing contextual associations comprises: (i) identifying pertinent documents present in the character entry system; (ii) creating a list of character strings contained within documents in the character entry system; and (iii) creating an interrelationship between distinct character strings in the list using their occurrence in the documents of the character entry system; in response to the user inputting a specified threshold of individual characters using the input device, identifying at least one selectable character string from among the character strings used in creating the computed contextual associations that can complete the incomplete input character string in context; providing the identified at least one selectable character string to a user in a manner suitable for selection by the user using the input device; and receiving, in the system, the user's selection and completing the incomplete input character string based upon the selection. See Ex. A, at Col. 18: 14 - 45.

14. As identified in the '784 Patent, prior art methods to provide automated word completion within incomplete character strings input by a digital device user had technological

faults and did not provide for a method that is automatic, dynamic, and context-based. See Ex. A at Col. 1 & 2.

15. Specifically, to deal with each token in these computer centric problems of incomplete character strings, the '784 patent requires (i) identifying pertinent documents present in the character entry system; (ii) *creating a list of character strings* contained within documents in the character entry system; and (iii) *creating an interrelationship between distinct character strings in the list using their occurrence in the documents of the character entry system*; in response to the user inputting a specified threshold of individual characters using the input device, *identifying at least one selectable character string from among the character strings used in creating the computed contextual associations that can complete the incomplete input character string in context*; providing the identified at least one selectable character string to a user in a manner suitable for selection by the user using the input device; and receiving, in the system, the user's selection and completing the incomplete input character string based upon the selection. These specific elements (i.e., creating a list of character string, *creating an interrelationship between distinct character strings in the list using their occurrence in the documents of the character entry system*, and *identifying at least one selectable character string from among the character strings used in creating the computed contextual associations that can complete the incomplete input character string in context*), as combined, accomplish the desired result of a method that is automatic, dynamic, and context-based for incomplete charter entry. Further, these specific elements also accomplish these desired results to overcome the then existing problems in the relevant field of computer operations and graphical interface systems. *Ancora Technologies, Inc. v. HTC America, Inc.*, 908 F.3d 1343, 1348 (Fed. Cir. 2018) (holding that improving computer security can be a non-abstract computer-functionality improvement if

done by a specific technique that departs from earlier approaches to solve a specific computer problem). See also *Data Engine Techs. LLC v. Google LLC*, 906 F.3d 999 (Fed. Cir. 2018); *Core Wireless Licensing v. LG Elecs., Inc.*, 880 F.3d 1356 (Fed. Cir. 2018); *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299 (Fed. Cir. 2018); *Uniloc USA, Inc. v. LG Electronics USA, Inc.*, 957 F.3d 1303 (Fed. Cir. April 30, 2020)

16. Claims need not articulate the advantages of the claimed combinations to be eligible. *Uniloc USA, Inc. v. LG Elecs. USA, Inc.*, 957 F.3d 1303, 1309 (Fed. Cir. 2020)

17. These specific elements of Claim 1 of the ‘784 Patent (i.e., creating a list of character string, *creating an interrelationship between distinct character strings in the list using their occurrence in the documents of the character entry system, and identifying at least one selectable character string from among the character strings used in creating the computed contextual associations that can complete the incomplete input character string in context*) were an unconventional arrangement of elements because the prior art methodologies were not is automatic, dynamic, and context-based. By adding the specific elements, Claim 1 of the ‘784 Patent was able unconventionally to generate a method for correcting incomplete character entries. *Cellspin Soft, Inc. v. FitBit, Inc.*, 927 F.3d 1306 (Fed. Cir. 2019)

18. Further, regarding the specific non-conventional and non-generic arrangements of known, conventional pieces to overcome an existing problem, the method of Claim 1 in the ‘784 Patent provides a method that would not preempt all ways of incomplete charter entry completion because method is based on *creating a list of character strings* contained within documents in the character entry system; and (iii) *creating an interrelationship between distinct character strings in the list using their occurrence in the documents of the character entry system*, any of which could be removed or performed differently to permit a method of

incomplete character completion in a different way. *Bascom Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016). See also *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014)

19. Based on the allegations, it must be accepted as true at this stage that Claim 1 of the ‘784 Patent recites a specific, plausibly inventive way of completing incomplete character entry and using specific protocols rather than the general idea of correcting misspellings. *Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306, 1319 (Fed. Cir. 2019), *cert. denied sub nom. Garmin USA, Inc. v. Cellspin Soft, Inc.*, 140 S. Ct. 907, 205 L. Ed. 2d 459 (2020).

20. Based on the foregoing assertions, Claim 1 of the ‘784 Patent provides non-abstract ideas, unconventional inventive concepts and is a practical application of the invention as described in the specifications.

21. In the alternative and at the very least, whether Claim 1 of the ‘784 Patent provides a non-abstract idea, unconventional inventive concepts or a practical application thereof as described in the specification is a genuine issue of material fact that must survive the pleading stage. See *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1128 (Fed. Cir. 2018) (reversing grant of motion to dismiss). See also *Berkheimer v. HP Inc.*, 881 F.3d 1360 (Fed. Cir. 2018), *cert. denied*, 140 S. Ct. 911, 205 L. Ed. 2d 454 (2020).

22. Defendants commercialize, inter alia, methods that perform all the steps recited in at least one claim of the ‘784 Patent. More particularly, Defendants commercialize, inter alia, methods that perform all the steps recited in Claim 1 of the ‘784 Patent. Specifically, Defendants make, use, sell, offer for sale, or import a method that encompasses that covered by Claim 1 of the ‘784 Patent.

23. On November 13, 2012, the United States Patent and Trademark Office (“USPTO”) duly and legally issued the ‘805 Patent, entitled “Automatic Dynamic Contextual Data Entry Completion System,” after a full and fair examination. The ‘805 Patent is attached hereto as Exhibit B and incorporated herein as if fully rewritten.

24. Plaintiff is the owner of the ‘805 Patent, having received all right, title and interest in and to the ‘805 Patent from the previous assignee of record. Plaintiff possesses all rights of recovery under the ‘805 Patent, including the exclusive right to recover for past infringement.

25. To the extent required, Plaintiff has complied with all marking requirements under 35 U.S.C. § 287 with respect to the ‘805 Patent.

26. The Abstract of the ‘805 Patent teaches a method, performed in a character entry system, for interrelating character strings so that an incomplete input character string can be completed by selection of a presented character string involving computing relationship scores for individual character strings in the system from documents present in the character entry system, in response to inputting a string of individual characters that exceeds a specific threshold, identifying at least one selectable character string from among contextual associations that can complete the input character string in context, based upon an overall ranking score computed as a function of at least two other scores, and providing the identified at least one selectable character string to a user for selection. See Ex. B at Abstract.

27. As identified in the ‘805 Patent, prior art methods to provide automated word completion within incomplete character strings input by a digital device user had technological faults and did not provide for a method that is automatic, dynamic, and context-based. See Ex. B at Col. 1 & 2.

28. Claim 1 of the '805 Patent recites a method, performed in a character entry system, for interrelating character strings so that an incomplete input character string can be completed by selection of a presented character string, the method comprising: computing relationship scores for individual character strings in the system from documents stored in memory of the character entry system, the relationship scores consisting of a function consisting of co-occurrence scores between pairs of distinct character strings stored in a single matrix created from the character strings in the stored documents; in response to inputting of a string of individual characters that exceeds a specified threshold, identifying at least one selectable character string from among contextual associations that can complete the input character string in context based upon an overall ranking score computed as a function of a relationship score and at least one other score; and providing the identified at least one selectable character string to a user for selection. See Ex. B at Col. 19: 24-43.

29. The method of Claim 2 of the '805 Patent recites the method of Claim 1, wherein each relationship score represents the contextual association between an individual character string and another character string based upon co-occurrence of character strings relative to each other. See Ex. B at Col. 19: 44-47.

30. Based on the foregoing assertions, Claims 1 and 2 of the '805 Patent provide non-abstract ideas, unconventional inventive concepts, and are practical applications of the invention as described in the specifications.

31. In the alternative and at the very least, whether Claims 1 and 2 of the '805 Patent provide a non-abstract idea, unconventional inventive concepts, or practical applications thereof as described in the specification is a genuine issue of material fact that must survive the pleading

stage. See *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1128 (Fed. Cir. 2018) (reversing grant of motion to dismiss).

32. Defendants commercialize, inter alia, methods that perform all the steps recited in at least one claim of the '805 Patent. More particularly, Defendants commercialize, inter alia, methods that perform all the steps recited in Claims 1 and 2 of the '805 Patent. Specifically, Defendants make, use, sell, offer for sale, or import a method that encompasses that covered by Claims 1 and 2 of the '805 Patent.

DEFENDANTS' PRODUCTS

33. Defendants offer products, such as the Blackberry KEYone and the Alcatel TCL A1 (A501DL) (individually, the "Blackberry Accused Product" and the "Alcatel Accused Product," and collectively, the "Accused Product"), that practice a method, performed in a character entry system (e.g., the predictive text system of the Accused Product), so that incomplete input character strings input by a user interacting with the character entry system, which are part of a series of input character strings which establish a context for the incomplete input character string (e.g., previous appearance of character strings in adjacent fashion), can be completed by a selection of a presented character string (e.g., selection of suggested selectable words) using an input device (e.g., the touchscreen of the Accused Product) connected to the character entry system.

34. A non-limiting and exemplary claim chart comparing the Blackberry Accused Product to Claim 1 of the '784 Patent is attached hereto as Exhibit C and incorporated herein as if fully rewritten.

35. The Blackberry Accused Product practices computing contextual associations between multiple character strings based upon occurrence of character strings relative to each

other (e.g., number of adjacent co-occurrence of pairs of various character strings) in documents (e.g., Notes, message mail, etc.) present in the character entry system. See Ex. C.

36. In the Blackberry Accused Product, as in Claim 1 of the '784 Patent, various character strings are associated with each other based on their mutual co-occurrence with adjacency. For instance, when two paragraphs, hereinafter referred to as the "Combined Essay," containing the phrases "James maxwell", "James Monroe", and "James Michener" are typed, and therefore input into the predictive text system of the Blackberry Accused Product, the predictive text system of the Blackberry Accused Product, based on the frequency of mutual co-occurrence of the string "James" with "maxwell", "Monroe", and "Michener," in the given order, starts providing selectable character strings when "James m" is typed. The two selectable character strings, among others, are "maxwell" and "Monroe." See Ex. C. For the reliability of the demonstration, the Combined Essay is typed five times. The frequency of occurrence of "James Maxwell", "James Monroe", and "James Michener" is 105, 50, and 20 respectively calculated over the Combined Essay repeated for five times. See Ex. C.

37. As shown in Exhibit C, since pairs of strings, for example "James" and "maxwell," adjacently appeared the most number of times (105) in comparison to the other pairs of strings with "James" as one of the strings, "maxwell" appears as a selectable option followed by "Monroe", since the number of adjunct appearances of "James" with "Monroe" is 50. See Ex. C.

38. As in Claim 1 of the '784 Patent, the Blackberry Accused Product practices identifying pertinent documents (e.g., stored notes or notes being composed) present in the character entry system (e.g., the predictive text system of the Blackberry Accused Product). See Ex. C.

39. As in Claim 1 of the '784 Patent, the Blackberry Accused Product practices creating a list of character strings contained within documents in the character entry system (e.g., the predictive text system of the Blackberry Accused Product) and creating an interrelationship between distinct character strings (e.g., frequency of adjacent appearance of pairs of character strings) in the list using their occurrence in the documents of the character entry system (e.g., the predictive text system of the Blackberry Accused Product). As shown in Exhibit C, various character strings are associated with each other based on their mutual co-occurrence with adjacency. For instance, when two paragraphs, hereinafter referred to as the "Combined Essay" and containing the phrases "James maxwell", "James Maxima", and "James Michener" are typed, and therefore input to the predictive text system of the Blackberry Accused Product, the predictive text system of the Blackberry Accused Product, based on the frequency of mutual co-occurrence of the string "James" with "maxwell", "Maxima", and "Michener", in the given order, start providing selectable character strings when "James m" is typed. The two selectable character strings, among others, are "maxwell" and "Maxima." For the reliability of the demonstration, the Combined Essay is typed five times. See Ex. C. The frequency of occurrence of "James Maxwell", "James "Maxima", and "James Michener" is 105, 50, and 20 respectively calculated over the Combined Essay repeated for five times. For calculating mutual co-occurrences of pairs of character strings, the Blackberry Accused Product must create a list of character strings contained in the documents (i.e., previously stored notes or notes being composed). See Ex. C.

40. The Blackberry Accused Product practices, in response to the user inputting a specific threshold (e.g., inputting a starting character of a word followed by the corresponding preceding word) of individual characters using the input device (e.g., the touchscreen of the

Accused Product), identifying at least one selectable character string (e.g., predicting selectable words for user selection) from among the character strings used in creating the computed contextual associations that can complete the incomplete input character string in context. See Ex. C. Since pairs of strings, for example “James” and “maxwell,” adjacently appeared for the most number of times (105) in comparison to the other pairs of strings with “James” as one of the strings, “maxwell” appears as a selectable option followed by “Maxima” – since the number of adjacent appearances of “James” with “Maxima” is 50 and is greater than the adjacent appearance of “James” with “Michener,” which stands at 20. See Ex. C. Exhibit C provides a Matrix depicting association of character string “James”, with the string “maxwell”, “Maxima”, and “Michener.”

41. The Blackberry Accused Product practices providing the identified at least one selectable character string (e.g., suggesting words for user selection) to a user in a manner suitable for selection by the user using the input device (e.g., the touchscreen of the Blackberry Accused Product). As shown in Exhibit C, since pairs of strings, for example “James” and “maxwell,” adjacently appear for the most number of times (105) in comparison to the other pairs of strings with “James” as one of the strings, “maxwell” appears as a selectable option followed by “Maxima”, since the number of adjacent appearances of “James” with “Maxima” is 50 and is greater than the adjacent appearance of “James” with “Michener,” which stands at 20. Shown in Exhibit C is a Matrix depicting association of character string “James” with character strings “maxwell”, “Maxima”, and “Michener.” See Ex. C.

42. The Blackberry Accused Product practices receiving the user's selection (e.g., selecting a suggested word by user) in the system and completing the incomplete input character string based upon the selection. See Ex. C.

43. The elements described in the preceding paragraphs are covered by at least Claim 1 of the '784 Patent. Thus, Defendants' use of the Blackberry Accused Product is enabled by the methods described in the '784 Patent.

44. A non-limiting and exemplary claim chart comparing the Blackberry Accused Product to Claims 1 and 2 of the '805 Patent is attached hereto as Exhibit D and incorporated herein as if fully rewritten.

45. The Blackberry Accused Product practices a method, performed in a character entry system (e.g., the predictive text system of the Accused Product), for interrelating character strings so that an incomplete input character string can be completed by selection of a presented character string (e.g., selection of suggested selectable words). See Ex. D.

46. As in Claim 1 of the '805 Patent, the Blackberry Accused Product practices computing relationship scores for individual character strings in the system from documents (e.g., notes, e-mail, etc.) stored in memory (e.g., memory of the Blackberry Accused Product) of the character entry system (e.g., predictive text system of the Blackberry Accused Product), the relationship scores consisting of a function consisting of co-occurrence scores between pairs of distinct character strings stored in a single matrix created from the character strings in the stored documents. As shown in Exhibit D, various character strings are associated with each other based on their mutual co-occurrence with adjacency. For instance, when two paragraphs, hereinafter referred to as the "Combined Essay" and containing the phrase "James maxwell", "James Maxima", and "James Michener" are typed, and therefore input to the predictive text system of the Blackberry Accused Product, the predictive text system of the Blackberry Accused Product, based on the frequency of mutual co-occurrence of the string "James" with "maxwell", "Maxima", and "Michener", in the given order, starts providing selectable character strings when

“James m” is typed. The two selectable character strings, among others, are “maxwell” and “Maxima.” For the reliability of the demonstration, the Combined Essay is typed five times. See Ex. D. The frequency of occurrence of “James Maxwell”, “James “Maxima”, and “James Michener” is 105, 50, and 20 respectively calculated over the Combined Essay repeated for five times. Since pairs of strings, for example “James” and “maxwell,” adjacently appeared for the most number of times (105) in comparison to the other pairs of strings with “James” as one of the strings, “maxwell” appears as a selectable option followed by “Maxima”, since the number of adjunct appearances of “James” with “Maxima” is 50. See Ex. D. Shown in Exhibit D is a Matrix depicting association of character string “James” with character strings “maxwell”, “Maxima”, and “Michener.”

47. As in Claim 1 of the ‘805 Patent, the Blackberry Accused Product practices a method, in response to inputting of a string of individual characters that exceeds a specified threshold (e.g., inputting a starting character of a word), of identifying at least one selectable character string (e.g., predicting selectable words for user selection) from among contextual associations that can complete the input character string in context based upon an overall ranking score computed as a function of a relationship score and at least one other score. As shown in Exhibit D, since pairs of strings, for example “James” and “maxwell,” adjacently appeared for the most number of times (105) in comparison to the other pairs of strings with “James” as one of the strings, “maxwell” appears as a selectable option followed by “Maxima” – since the number of adjacent appearances of “James” with “Maxima” is 50 and is greater than the adjacent appearance of “James” with “Michener,” which stands at 20. See Ex. D. Shown in Exhibit D is a Matrix depicting association of character string “James” with character strings “maxwell”, “Maxima”, and “Michener.”

48. As in Claim 1 of the '805 Patent, the Blackberry Accused Product practices providing the identified at least one selectable character string (e.g., suggesting words for user selection) to a user for selection (e.g., user can select a desired word). As shown in Exhibit D, since pairs of strings, for example "James" and "maxwell," adjacently appeared for the most number of times, 105 to be precise, in comparison to the other pairs of strings with "James" as one of the strings, "maxwell" appears as a selectable option followed by "Maxima", since the number of adjacent appearances of "James" with "Maxima" is 50 and which is greater than the adjacent appearance of "James" with "Michener" which stands at 20. Shown in Exhibit D is a Matrix depicting association of character string "James" with character strings "maxwell", "Maxima", and "Michener." See Ex. D.

49. As in Claim 2 of the '805 Patent, the Blackberry Accused Product practices a method such that each relationship score represents the contextual association between an individual character string and another character string based upon co-occurrence of character strings relative to each other. As shown in Exhibit D, since pairs of strings, for example, "James" and "maxwell" has adjacently appeared for the most number of times, 105 to be precise, in comparison to the other pairs of strings with "James" as one of the strings, "maxwell" appears as a selectable option followed by "Maxima", since the number of adjacent appearances of "James" with "Maxima" is 50 and which is greater than the adjacent appearance of "James" with "Michener" which stands at 20. Shown in Exhibit D is a Matrix depicting association of character string "James" with character strings "maxwell", "Maxima", and "Michener." See Ex. D.

50. The elements described in the preceding paragraphs are covered by at least Claims 1 and 2 of the '805 Patent. Thus, Defendants' use of the Blackberry Accused Product is enabled by the methods described in the '805 Patent.

51. A non-limiting and exemplary claim chart comparing the Alcatel Accused Product to Claim 1 of the '784 Patent is attached hereto as Exhibit E and incorporated herein as if fully rewritten.

52. The Alcatel Accused Product practices computing contextual associations between multiple character strings based upon occurrence of character strings relative to each other (e.g., number of adjacent co-occurrence of pairs of various character strings) in documents (e.g., notes, message, email, etc.) present in the character entry system. See Ex. E.

53. In the Alcatel Accused Product, as in Claim 1 of the '784 Patent, various character strings are associated with each other based on their mutual co-occurrence with adjacency. For instance, when two paragraphs, hereinafter referred to as the "Combined Essay," containing the phrases "James maxwell", "James Maxima", and "James Michener" are typed, and therefore input into the predictive text system of the Accused Product, the predictive text system of the Alcatel Accused Product, based on the frequency of mutual co-occurrence of the string "James" with "maxwell", "Maxima", and "Michener," in the given order, starts providing selectable character strings when "James m" is typed. The two selectable character strings, among others, are "maxwell" and "Maxima." See Ex. E. For the reliability of the demonstration, the Combined Essay is typed five times. The frequency of occurrence of "James Maxwell", "James "Maxima", and "James Michener" is 105, 50, and 20 respectively calculated over the Combined Essay repeated for five times. See Ex. E.

54. As shown in Exhibit E, since pairs of strings, for example “James” and “maxwell,” adjacently appeared the most number of times (105) in comparison to the other pairs of strings with “James” as one of the strings, “maxwell” appears as a selectable option followed by “Maxima”, since the number of adjunct appearances of “James” with “Maxima” is 50. See Ex. E.

55. As in Claim 1 of the ‘784 Patent, the Alcatel Accused Product practices identifying pertinent documents (e.g., stored notes or notes being composed) present in the character entry system (e.g., the predictive text system of the Accused Product). See Ex. E.

56. As in Claim 1 of the ‘784 Patent, the Alcatel Accused Product practices creating a list of character strings contained within documents in the character entry system (e.g., the predictive text system of the Alcatel Accused Product) and creating an interrelationship between distinct character strings (e.g., frequency of adjacent appearance of pairs of character strings) in the list using their occurrence in the documents of the character entry system (e.g., the predictive text system of the Alcatel Accused Product). As shown in Exhibit E, various character strings are associated with each other based on their mutual co-occurrence with adjacency. For instance, when two paragraphs, hereinafter referred to as the “Combined Essay” and containing the phrases “James maxwell”, “James Maxima”, and "James Michener" are typed, and therefore input to the predictive text system of the Alcatel Accused Product, the predictive text system of the Alcatel Accused Product, based on the frequency of mutual co-occurrence of the string “James” with “maxwell”, “Maxima”, and “Michener”, in the given order, start providing selectable character strings when “James m” is typed. The two selectable character strings, among others, are “maxwell” and “Maxima.” For the reliability of the demonstration, the Combined Essay is typed five times. See Ex. E. The frequency of occurrence of “James

Maxwell”, “James “Maxima”, and “James Michener” is 105, 50, and 20 respectively calculated over the Combined Essay repeated for five times. For calculating mutual co-occurrences of pairs of character strings, the Alcatel Accused Product must create a list of character strings contained in the documents (i.e., previously stored notes or notes being composed). See Ex. E.

57. The Alcatel Accused Product practices, in response to the user inputting a specific threshold (e.g., inputting a starting character of a word followed by the corresponding preceding word) of individual characters using the input device (e.g., the touchscreen of the Accused Product), identifying at least one selectable character string (e.g., predicting selectable words for user selection) from among the character strings used in creating the computed contextual associations that can complete the incomplete input character string in context. See Ex. E. Since pairs of strings, for example “James” and “maxwell,” adjacently appeared for the most number of times (105) in comparison to the other pairs of strings with “James” as one of the strings, “maxwell” appears as a selectable option followed by “Maxima” – since the number of adjacent appearances of “James” with “Maxima” is 50 and is greater than the adjacent appearance of “James” with “Michener,” which stands at 20. See Ex. E. Exhibit E provides a Matrix depicting association of character string “James”, with the string “maxwell”, “Maxima”, and “Michener.”

58. The Alcatel Accused Product practices providing the identified at least one selectable character string (e.g., suggesting words for user selection) to a user in a manner suitable for selection by the user using the input device (e.g., the touchscreen of the Accused Product). As shown in Exhibit E, since pairs of strings, for example “James” and “maxwell,” adjacently appear for the most number of times (105) in comparison to the other pairs of strings with “James” as one of the strings, “maxwell” appears as a selectable option followed by “Maxima”, since the number of adjacent appearances of “James” with “Maxima” is 50 and is

greater than the adjacent appearance of “James” with “Michener,” which stands at 20. Shown in Exhibit E is a Matrix depicting association of character string “James” with character strings “maxwell”, “Maxima”, and “Michener.” See Ex. E.

59. The Alcatel Accused Product practices receiving the user's selection (e.g., selecting a suggested word by user) in the system and completing the incomplete input character string based upon the selection. See Ex. E.

60. The elements described in the preceding paragraphs are covered by at least Claim 1 of the ‘784 Patent. Thus, Defendants’ use of the Alcatel Accused Product is enabled by the methods described in the ‘784 Patent.

61. A non-limiting and exemplary claim chart comparing the Alcatel Accused Product to Claims 1 and 2 of the ‘805 Patent is attached hereto as Exhibit F and incorporated herein as if fully rewritten.

62. The Alcatel Accused Product practices a method, performed in a character entry system (e.g., the predictive text system of the Alcatel Accused Product), for interrelating character strings so that an incomplete input character string can be completed by selection of a presented character string (e.g., selection of suggested selectable words). See Ex. F.

63. As in Claim 1 of the ‘805 Patent, the Alcatel Accused Product practices computing relationship scores for individual character strings in the system from documents (e.g., notes, e-mail, etc.) stored in memory (e.g., memory of the Alcatel Accused Product) of the character entry system (e.g., predictive text system of the Alcatel Accused Product), the relationship scores consisting of a function consisting of co-occurrence scores between pairs of distinct character strings stored in a single matrix created from the character strings in the stored documents. As shown in Exhibit F, various character strings are associated with each other based

on their mutual co-occurrence with adjacency. For instance, when two paragraphs, hereinafter referred to as the “Combined Essay” and containing the phrase “James maxwell”, “James Maxima”, and “James Michener” are typed, and therefore input to the predictive text system of the Alcatel Accused Product, the predictive text system of the Alcatel Accused Product, based on the frequency of mutual co-occurrence of the string “James” with “maxwell”, “Maxima”, and “Michener”, in the given order, starts providing selectable character strings when “James m” is typed. The two selectable character strings, among others, are “maxwell” and “Maxima.” For the reliability of the demonstration, the Combined Essay is typed five times. See Ex. F. The frequency of occurrence of “James Maxwell”, “James “Maxima”, and “James Michener” is 105, 50, and 20 respectively calculated over the Combined Essay repeated for five times. Since pairs of strings, for example “James” and “maxwell,” adjacently appeared for the most number of times (105) in comparison to the other pairs of strings with “James” as one of the strings, “maxwell” appears as a selectable option followed by “Maxima”, since the number of adjunct appearances of “James” with “Maxima” is 50. See Ex. F. Shown in Exhibit F is a Matrix depicting association of character string “James” with character strings “maxwell”, “Maxima”, and “Michener.”

64. As in Claim 1 of the ‘805 Patent, the Alcatel Accused Product practices a method, in response to inputting of a string of individual characters that exceeds a specified threshold (e.g., inputting a starting character of a word), of identifying at least one selectable character string (e.g., predicting selectable words for user selection) from among contextual associations that can complete the input character string in context based upon an overall ranking score computed as a function of a relationship score and at least one other score. As shown in Exhibit F, since pairs of strings, for example “James” and “maxwell,” adjacently appeared for the most

number of times (105) in comparison to the other pairs of strings with “James” as one of the strings, “maxwell” appears as a selectable option followed by “Maxima” – since the number of adjacent appearances of “James” with “Maxima” is 50 and is greater than the adjacent appearance of “James” with “Michener,” which stands at 20. See Ex. F. Shown in Exhibit F is a Matrix depicting association of character string “James” with character strings “maxwell”, “Maxima”, and “Michener.”

65. As in Claim 1 of the ‘805 Patent, the Alcatel Accused Product practices providing the identified at least one selectable character string (e.g., suggesting words for user selection) to a user for selection (e.g., user can select a desired word). As shown in Exhibit F, since pairs of strings, for example “James” and “maxwell,” adjacently appeared for the most number of times, 105 to be precise, in comparison to the other pairs of strings with “James” as one of the strings, “maxwell” appears as a selectable option followed by “Maxima”, since the number of adjacent appearances of “James” with “Maxima” is 50 and which is greater than the adjacent appearance of “James” with “Michener” which stands at 20. Shown in Exhibit F is a Matrix depicting association of character string “James” with character strings “maxwell”, “Maxima”, and “Michener.” See Ex. F.

66. As in Claim 2 of the ‘805 Patent, the Alcatel Accused Product practices a method such that each relationship score represents the contextual association between an individual character string and another character string based upon co-occurrence of character strings relative to each other. As shown in Exhibit F, since pairs of strings, for example, “James” and “maxwell” has adjacently appeared for the most number of times, 105 to be precise, in comparison to the other pairs of strings with “James” as one of the strings, “maxwell” appears as a selectable option followed by “Maxima”, since the number of adjacent appearances of “James”

with “Maxima” is 50 and which is greater than the adjacent appearance of “James” with “Michener” which stands at 20. Shown in Exhibit F is a Matrix depicting association of character string “James” with character strings “maxwell”, “Maxima”, and “Michener.” See Ex. F.

67. The elements described in the preceding paragraphs are covered by at least Claims 1 and 2 of the ‘805 Patent. Thus, Defendants’ use of the Alcatel Accused Product is enabled by the methods described in the ‘805 Patent.

INFRINGEMENT OF THE PATENTS-IN-SUIT

68. Plaintiff realleges and incorporates by reference all of the allegations set forth in the preceding paragraphs

69. In violation of 35 U.S.C. § 271, Defendants are now and have been directly infringing the ‘784 Patent and ‘805 Patent.

70. Defendants have had knowledge of infringement of the Patents-in-Suit at least as of the service of the present Complaint.

71. Defendants have directly infringed and continue directly to infringe at least one claim of the Patents-in-Suit by using, at least through internal testing or otherwise, the Accused Product without authority in the United States, and will continue to do so unless enjoined by this Court. As a direct and proximate result of Defendants’ direct infringement of the Patents-in-Suit, Plaintiff has been and continues to be damaged.

72. Defendants have induced others to infringe the Patents-in-Suit, by encouraging infringement, knowing that the acts Defendants induced constituted patent infringement, and their encouraging acts actually resulted in direct patent infringement.

73. By engaging in the conduct described herein, Defendants have injured Plaintiff and thus are liable for infringement of the '784 Patent and '805 Patent, pursuant to 35 U.S.C. § 271.

74. Defendants have committed these acts of infringement without license or authorization.

75. As a result of Defendants' infringement of the Patents-in-Suit, Plaintiff has suffered monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for Defendants' past infringement, together with interests and costs.

76. Plaintiff will continue to suffer damages in the future unless Defendants' infringing activities are enjoined by this Court. As such, Plaintiff is entitled to compensation for any continuing and/or future infringement up until the date that Defendants are finally and permanently enjoined from further infringement.

77. Plaintiff reserves the right to modify its infringement theories as discovery progresses in this case; it shall not be estopped for infringement contention or claim construction purposes by the claim charts that it provides with this Complaint. The claim charts depicted in Exhibits C, D, E, and F are intended to satisfy the notice requirements of Rule 8(a)(2) of the Federal Rules of Civil Procedure and do not represent Plaintiff's preliminary or final infringement contentions or preliminary or final claim construction positions.

DEMAND FOR JURY TRIAL

78. Plaintiff demands a trial by jury of any and all causes of action.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays for the following relief:

- a. That Defendants be adjudged to have directly infringed the ‘784 Patent and ‘805 Patent, either literally or under the doctrine of equivalents;
- b. An accounting of all infringing sales and damages including, but not limited to, those sales and damages not presented at trial;
- c. That Defendants, their officers, directors, agents, servants, employees, attorneys, affiliates, divisions, branches, parents, and those persons in active concert or participation with any of them, be permanently restrained and enjoined from directly infringing the ‘784 Patent and ‘805 Patent;
- d. An award of damages pursuant to 35 U.S.C. §284, sufficient to compensate Plaintiff for the Defendants’ past infringement and any continuing or future infringement up until the date that Defendants are finally and permanently enjoined from further infringement, including compensatory damages;
- e. An assessment of pre-judgment and post-judgment interest and costs against Defendants, together with an award of such interest and costs, in accordance with 35 U.S.C. §284;
- f. That Defendants be directed to pay enhanced damages, including Plaintiff’s attorneys’ fees incurred in connection with this lawsuit pursuant to 35 U.S.C. §285; and
- g. That Plaintiff be granted such other and further relief as this Court may deem just and proper.

Dated: September 21, 2020

Respectfully submitted,

Together with:

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