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(54) Title: SYSTEMS AND METHODS FOR CHARACTER CORRECTION IN COMMUNICATION DEVICES

(57) Abstract: A system and method for character error correction is provided, useful for a user of mobile appliances to produce written text with reduced errors. The system includes an interface, a word prediction engine, a statistical engine, an editing distance calculator, and a selector. A string of characters, known as the inputted word, may be entered into the mobile device via the interface. The word prediction engine may then generate word candidates similar to the inputted word using fuzzy logic and user preferences generated from past user behavior. The statistical engine may then generate variable error costs determined by the probability of erroneously inputting any given character. The editing distance calculator may then determine the editing distance between the inputted word and each of the word candidates by grid comparison using the variable error costs. The selector may choose one or more preferred candidates from the word candidates using the editing distances.

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