



The Design of Multifunctional English Memory App Based on Artificial Intelligence

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Abstract:

In recent years, artificial intelligence technology has made great breakthroughs. Big data, cloud computing, voice recognition and deep learning have become new concerns in the eyes of the public following the Internet and the Internet of Things. Driven by relevant information and communication technologies, ARTIFICIAL intelligence has gradually appeared in all aspects of people's lives with new algorithms, new technologies, new experiences and new applications. The vigorous development of artificial intelligence technology promotes the innovation of foreign language teaching concepts and learning methods, and brings new development opportunities and challenges to English teaching. Artificial intelligence takes the analysis of individual differences of language learners, tailored learning content and diversified and three-dimensional teaching media as the teaching elements of smart classroom. This article mainly tells the story of multifunctional English memory APP in artificial intelligence environment design, put forward his opinion according to the current situation of English teaching, with the help of technical means such as artificial intelligence (ai) for the design of English memory APP, the purpose is to promote English learners' autonomous learning, establishing perfect English learning system, so as to accelerate the process of English learning, Finally form the harmonious development of English learning.

Keywords: *Artificial Intelligence, Multifunction English, APP Design*

1 INTRODUCTION

With the upsurge of English learning and the development of mobile Internet, English learning apps are on the rise. With the continuous innovation of Artificial intelligence technology and the overall promotion of software and hardware upgrading in China [4], future learning software in China has achieved rapid development, presenting a competitive pattern of a hundred flowers blooming and a hundred schools of thought arguing. In terms of the current situation, there are few learning software in the domestic application market with relatively single functions [5], which cannot capture effective information when users read English articles or generate personalized recommendations [6]. This makes the process of learning English very boring for users. Therefore, it is necessary to keep users active and interested in the APP while ensuring the quality of English teaching [7].

2 DESIGN DIRECTION OF MULTIFUNCTIONAL ENGLISH MEMORY APP

In terms of technology, the APP is expected to involve and implement Java language technology, mobile terminal software design technology database technology and so on. Among them, the front part of the software is mainly user interface, including login interface, new words interface, word recognition interface, historical article interface, high-quality resource sharing interface and so on, in different platforms need to achieve local language support. Since Android and IOS terminals are the most used platforms and the most valuable potential for software development, the main application platform of this App is the mobile device terminal. Front-end development mainly uses Java language technology. Thanks to the Basic Guide to User Interface Design, edition 3 provides a comprehensive, step-by-step guide to building a user-friendly system interface. The design of the interface takes into account both usage and aesthetics. Simple sets and contrasting colors are used to present each module,

making each interface more concise and clear and greatly optimizing user experience. The software uses serialization and deserialization technologies to read engineering files when the user refreshes the page. The interface recovery of user operations has been completed, so as to improve the user experience.

In the latter part, a local server is set up to store user data, article and song resource data, user upload data and so on. When a user registers an account, the system automatically records the user's information in the database. Secondly, when downloading the existing dictionaries on the Internet, the dictionary database required by the software will be established, so as to manage and use the data [9]. Load data information to the local server by using web page parsing technology, and provide users with the function of downloading to the local server by using file reading and writing technology, so that users can use it offline. At the same time, users can upload their own articles, videos, so that it is more convenient to learn the information they want. High efficiency and interest are the initial intention of this App development [3]. The uploaded video data will be associated with the user's information in the background, so that it is not only convenient for users to learn, but also for others to see, enriching the learning materials of different users. After having the data, through the database search technology, the words in the article and short lyrics are compared with the database selected by the user, so as to find out the words and phrases in the article that the user needs to master, and the definition is displayed next to it, so that the user can learn to use it.



Figure 1: Number of paid users of the English APP

3 MODEL REASONING

In the process of reasoning, if the premise of a rule is composed of multiple premises. Generally speaking, each premise has different effects on the rule conclusion. In the process of imprecise reasoning, if there are many premises of only conditions, the weighting factor can be introduced to express the importance of the condition. By assigning different weights to different subconditions, we can reflect the influence of the conclusion in multiple conditions. In general, if a subcondition is more independent, or more important it is to conclusions, the larger its weighting factor should be. The knowledge representation considering the weights is as follows:

IF $A_1(w_1) * A_2(w_2) * A_3(w_3) * \dots * A_n(w_n)$ THEN B
 $CF(B, A)$

$$(A = A_1(w_1) \wedge A_2(w_2) \wedge A_3(w_3) \wedge \dots \wedge A_n(w_n))$$

Where, $A_i (i=1, 2, \dots, N)$ is the subpremise and the conclusion, and their truth values are between $[0, 1]$. Weighted factor $w_i (i=1, 2, \dots, N)$ is the weight coefficient of subcondition A_i , whose value must be given by domain experts and meet normalization conditions:

$$\sum_{i=1}^n w_i = 1 \quad (1)$$

$$CF(A) = \sum_{i=1}^n w_i * CF(A_i) \quad (2)$$

$$CF(B) = CF(B, A) * CF(A) \quad (3)$$

The weighting factor of subconditions is introduced in the rule so that multiple conditional pairs of conclusions can be expressed in the English expert system. Different support levels and independent dependence of each condition enhance the accuracy of knowledge representation and imprecise reasoning. It also solves the problem of uncertain reasoning when conditions are incomplete [10]. With the continuous improvement of college English teaching level and college freshmen's English level, the Ministry of Education has issued new regulations on college English teaching syllabus, new requirements on college English teaching, and higher requirements on non-English major students, especially their listening and oral expression ability.

$$(1 + x)^n = 1 + \frac{nx}{1!} + \frac{n(n-1)x^2}{2!} + \dots \quad (4)$$

The emphasis of college English teaching has changed to cultivating students' comprehensive English application ability, autonomous learning ability and improving cultural cultivation [11]. In recent years, the enrollment expansion of colleges and universities led to the entrance of the students number increased year by year, but did not result in the corresponding teaching environment and conditions improving, small class teaching in foreign language teacher shortages, increasing teachers' class, class teachers into the machine, because energy is limited, the teachers are hard to the monitoring work.

4 SUGGESTIONS ON THE DESIGN OPTIMIZATION OF MULTI-FUNCTIONAL ENGLISH MEMORY APP BASED ON ARTIFICIAL INTELLIGENCE

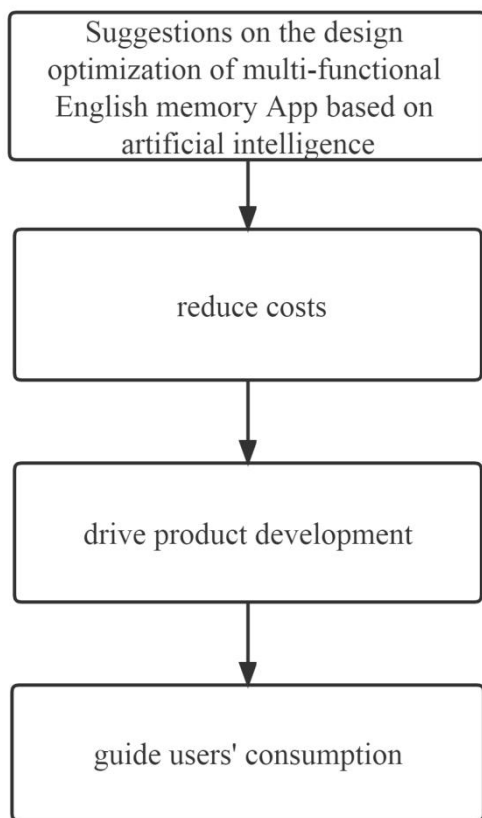


Figure2. Suggestions on the design optimization of multi-functional English memory App based on artificial intelligence

First, precision marketing is needed to reduce costs. Compared with precision marketing, traditional marketing has obvious disadvantages [2]. There are many influencing factors in conventional methods such as market research and questionnaire, and it is difficult to evaluate the accuracy and authenticity of data. Marketing costs are difficult to be used on the "edge". Precision marketing will not face such problems. By collecting and sorting out big data and producing accurate and true reports, user data will be clearly displayed in front of enterprises. Enterprises carry out marketing according to user data, which in essence completes the interaction with users and reduces a considerable part of unnecessary expenditure [1]. At the same time, accurate user data will also feed the product, and constantly promote the product to advance towards user needs. In the process of user participation, the influence of enterprise brand on consumers will be unconsciously completed.

Secondly, precise marketing is needed to drive product development. Using big data to analyze and mine

users can achieve the function of precision marketing [12]. Memory APP below each item according to the English course hits, browsing time, sharing, punching, learning efficiency, such as data, through data collection and analysis, finally to visualize data using algorithm, unearthed a user's interest and demand direction, in view of the user data results and demand pain points to guide curriculum development, push, Finally, we can use data to drive the development direction of products, give full play to the value of data, and reduce the input of marketing costs [13].

Finally, precise marketing is needed to guide users' consumption. APP can collect, sort out and analyze the data of consumer behavior, so as to get some general characteristics of consumers when they trigger consumer behavior, and carry out targeted marketing to consumers through appropriate user stratification [8]. Can fluently speak English in your own background monitor students' learning efficiency, completion, clock stability data, through these data modeling to predict and judge, which students are more frequently renewal of students, what are the students in the possibility of renewal lower, which students are basic renewal possibility of 0, through the data in the database, You can implement refined marketing. For those that are likely to renew, shifts in the community actively push sales promotion information regularly, you will attract them to buy, to this kind of users into paying customers for a long time, for this type of users, only need to make full use of the old customer repurchase ability, attach importance to the reputation of the old customers, and timely follow-up follow-up service, do not need to spend too much time and energy in the sales level [14]. The focus of the marketing should focus on low possibility to renew some of the crowd, need operation team for this kind of crowd, study their hesitation paid for, may be time, money, or is course not attractive enough, the main operating and cost more to this kind of potential users, to actively converts them into paying customers for a long time, At the same time, reduce the cost of acquiring customers [15].

5 CONCLUSION

The progress of science and technology has changed the world, and the development of information technology has also changed English teaching, bringing incomparable efficiency to the English classroom. Innovative English teaching in the era of big data is of great significance to the practical application ability of English subjects. English teaching in junior middle schools under the background of big data provides great convenience to the way of classroom teaching and students' learning. Information-based teaching AIDS have become necessary tools for teachers in class. However, with the advancement of the era of big data, some problems have emerged in English teaching, which requires English teachers to innovate teaching models in

this context and ensure the steady and orderly development of English teaching. It is believed that With the passage of time and the progress of science and technology, English teaching APP will be gradually promoted and improved.

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