

Research on the Communication Dilemma and Strategy of Micro Class in the Omnimedia Perspective

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Abstract: In the whole media mobile network, the expression of news information and communication methods have changed a lot. In the new historical period, micro lesson is an effective way of information transmission, but it still has some problems, such as low utilization rate, lack of interaction and poor user experience. In this paper, the teaching under the mobile network, and from the mobile application environment, pay attention to interaction design, pay attention to data acquisition and processing micro-class design mechanism, for the development of micro-class design and application of design technology theory.

Keywords: Micro-class; All-media vision; Interactive learning; Learning Resources

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Since the 21st century, with the rapid development of information technology, people’s access to and transmission of knowledge have undergone great changes, and a number of new forms of education such as flipped classroom, MOOC and SPOC have appeared. In this round of changes, micro classroom with its brief, concise teaching content expression, has gradually become an important resource in today’s teaching. Since Hu Tiesheng launched micro courses in 2010, the research on micro courses has become increasingly hot, and the number of micro courses at different levels has also shown an amazing speed.

1. Characteristics of information presentation and transmission in the omnimedia perspective

1.1 Compatibility

This information can be displayed adaptively depending on the user’s operational actions or the parameters of the final device such as screen resolution, operating system platform, screen orientation, etc. Users can read information on a phone or tablet, just as they would on a PC, without having to zoom in and out manually. In iOS, Android, Windows and other different operating systems, there is no need to install any plug-in; When the user moves on the screen of the mobile terminal, it will be automatically displayed according to the user’s choice, so as to improve the user’s reading experience.

1.2 Rich media

Mobile society is the most important information transmission medium in mobile network, because most mobile social networks are built in real life, so the user stickiness on mobile phones is high, and the number of users is large, and they will stay on mobile phones for a longer time. With the socialization of mobile phones, information is closely integrated with the society and integrated into our lives. Information has also developed from a single medium to a “rich media” form of text, voice, image, video and other media to meet the needs of socialization. In the mobile phone society, high-quality, interesting and interactive information will be noticed

and forwarded by more people, and spread in a “viral” way. It also stimulates the creativity and motivation of journalists, which drives them to produce high-quality content. On the other hand, if the information is not interactive and the content is inflexible, the feedback and forwarding will tend to stall or die out quickly.

1.3 Miniaturization

In the all-media vision, as the mainstream terminal of information, from PC to smart phone, it is becoming thinner and more convenient, providing people with the hardware conditions to surf the Internet at any time. Meanwhile, the way of network access is becoming more and more flexible and convenient, such as 3G, 4G, ordinary Wi-Fi, high-speed Wi-Fi, and even 2G. Becomes a temporary network because the data and downlink rates vary. In the omnimedia vision, it can realize the unimpeded access to most Internet applications, so that people can “receive”, “send” and “interact” at any time and anywhere in a full range of space and time Internet experience.

2. The dilemma of video micro-class in the omnimedia vision

At present, most micro-courses are initially planned according to the teaching video as the main medium proposed by Professor Hu Tiesheng in 2011, which refers to the organic combination of various teaching resources for teachers to teach and learn according to specific content or content. At present, the cognition of micro-course is limited to “micro-course is a well-designed and well-made network teaching video”, which makes the present presentation mode of micro-course mostly adopt the form of video presentation. In this case, the advantages of video teaching are obvious:

2.1 The learning effect of video micro class in mobile learning scene is not ideal

Both psychological and pedagogical theories point out that “information presentation and cognitive style” play an important role in students’ learning outcomes, and relevant researches have also proved this view. Chen Yanlei’s investigation results showed that: “In terms of the presentation form of teaching materials, the score of paper test combined with audiovisual test was higher than that of listening and video; Zhang Ting pointed out that” the expression form and cognition style of animation “had an obvious interactive effect on students’ learning results.

2.2 It is difficult to realize interactive function of video micro class

Interaction plays a key role in the entire media landscape. Proper interaction can effectively guide users to have a deeper understanding of the information to be conveyed, thus increasing the experience of users in obtaining the information and greatly improving the efficiency of the information. As a result, it is impossible for students to have “interactive communication” with students in the process of acquiring micro-lessons, and the resources of micro-courses cannot collect the learning effect, feedback and other relevant information of students in each stage of learning activities. Therefore, the construction manager of micro-class resources cannot obtain effective resource utilization data and feedback data, which are exactly the important information sources for the benign evolution of micro-class resources.

2.3 Video micro class is not conducive to the communication in the omnimedia perspective

Under normal circumstances, the length of video mini-courses is generally between 5 to 8 minutes, their capacity is generally tens of meters, some are hundreds of meters. The playback and display platform, user network environment and user terminal environment of such micro-class should meet the needs of users. The microcourses are aimed at the Internet on personal computers, where users have fixed, stable, high-speed broadband connections, while desktop and laptop computers can teach using a variety of playback software. However, in the vision of the whole media, the network space of the user is constantly changing, and the performance of the user’s terminal products in terms of software and hardware is also different. For students who regularly use free, high-speed Wi-Fi to access the Internet, of course, no worries.

3. Principles of micro-course design in the omnimedia vision environment

In today’s all-media era, the way people transfer and obtain information has undergone fundamental changes. Social media such as wechat and Weibo are the most important communication channels for people. Everyone can upload their messages to the Internet and then comment and forward them on their social media. Social attributes play an important role in the transmission of information. Some highly interactive information that is easy to form “resonance” often has an effect similar to “virus” in the transmission mechanism of social networks. Microlessons (also known as “knowledge”) are an important means of social interaction today. In the whole media vision, the teaching of micro courses should not only conform to the basic principles of teaching, but also conform to the following points:

3.1 Must adapt to the mobile application environment

Under the omni-media vision, students’ learning mode has changed a lot compared with the past, from “systematic learning” to “block learning” and “piecemeal storage” learning mode. The coexistence of various learning modes makes educational activities

no longer limited to classrooms or specific teaching sites, but can transfer various forms of knowledge (miniature), such as wechat and Weibo sharing, two-dimensional code of specific scenes, etc., which can be used for teaching. In order to meet the information exchange mode in the new era, the application of micro course in teaching needs to be reformed. In the form of expression, can use text, graphics, images, audio and video, table, human-computer interaction and other “rich media” expression. This small network can carry a large amount of data in a small amount of space, convenient for a variety of network applications. With the application of reactive teaching idea, self-regulation of teaching content is realized on various terminals such as mobile phone, tablet computer and PC, which brings good learning effect for students in different teaching scenarios.

3.2 Must have interactive capabilities

Under the omnimedia view, the learning style has changed greatly, and the “systematic learning” type of fractional storage integrated learning has changed. Multi-learning storage, so that education activities are no longer limited or specific teaching stations, knowledge micro such as: wechat and Weibo sharing, specific scene two-dimensional code, etc., are used in teaching. For the new time letter style, micro lesson reform. In form can adopt text, graphic images, audio and video form human-computer interaction and other rich media. This type of network is available in quantity, then each network. Use should, mobile phone, tablet computer, PC and other terminals on their own use of learning.

(1) Interactive content. Content interaction refers to the accurate transmission of the contained knowledge to users through various media such as text, sound and video, and through changes in color, shape, space and volume. For example: graphic combination, speech input, speech recognition, speech synthesis, video presentation and so on.

(2) Interactive actions. Behavioral interaction in micro-class teaching refers to the direct interaction between students and teaching resources in the teaching process, thus causing the change of teaching content and obtaining the corresponding information. For example: using multiple touch screens to stimulate various display animations, using various sensors to obtain user learning status, using camera microphones to receive student instructions. This interaction will lead to tactile, visual and auditory experiences for students, resulting in a better learning experience.

3.3 Data collection and analysis function must be available

Under the omnimedia view, the learning style has changed greatly, and the “systematic learning” type of fractional storage integrated learning has changed. Multi-learning storage, so that education activities are no longer limited or specific teaching stations, knowledge micro such as: wechat and Weibo sharing, specific scene two-dimensional code, etc., are used in teaching. For the new time letter style, micro lesson reform. In form can adopt text, graphic images, audio and video form human-computer interaction and other rich media. This type of network is available in quantity, then each network. Use should, mobile phone, tablet computer, PC and other terminals on their own use of learning. In the aspects of data acquisition, semantic analysis and data mining, it can make the accurate transmission of data and intelligent evolution. Big data is the most powerful scientific and technological support for constructing and integrating high-quality teaching resources and improving the efficiency of using teaching resources.

In short, from the perspective of all media, the development of micro-class should adapt to the development trend of The Times, make bold innovations in teaching methods and development methods, and make full use of modern mobile phone technology to improve the efficiency of teaching.

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