I believe that literacy refers to the ability to express oneself in the language created by humans, such as reading, writing, etc., and to use various symbols, words, diagrams, etc. It is a good way of communicating with people, as it allows them to create and express their ideas and opinions clearly. Literacy is very important as it relates to the transmission of information and the development of society.

Computer programming is a computer language, unlike human language, which is highly logical and expresses computer-oriented instructions and algorithms rather than human-oriented communication messages. Therefore, a human being needs to use computer programming when communicating with a computer, otherwise the computer would not recognize the language. Therefore, I believe that considering computer programming as a literacy skill means that it has become an important form of communication in the society and that it shows that computers are inseparable from our lives and that the acquisition of computer programming skills has become a necessary skill in modern society.

Programming was welcoming to women when the division of labor was between male engineers and designers and female programmers and debuggers, but now it is heavily male-dominated(Vee, Annette, 2017). Statistically some of the reasons for female programmers in the profession are due to the division of labour. I think trying to reduce the difficulty of the code, or even using visuals to aid programming, can help users to program quickly and solve problems without writing complex code, and it can increase the number of people learning to code and address some of the programming literacy issues. In addition to this, it is important to stimulate interest in programming, as with the visualization mentioned earlier, by making it easier to understand the experience of programming rather than learning boring code all the time.

As this book shows, seeing programming through writing and literacy allows us to put it in a longer historical and cultural context of information management and expression(Vee, Annette, 2017). I think that in learning and writing code, programming should be viewed in the same way as learning to literacy, rather than thinking of programming as an obscure language, which can create resistance. Alternatively, programming courses in schools are a good solution. Computers have become inseparable from public life, so it is essential to develop programming literacy from an early age. For artistic creation too it is not only limited to hand drawing, computer programming creates new possibilities for art. I therefore think it makes sense to include programming as a subject such as data structures, algorithms, operating systems, computer networks and databases, and to start learning it from a young age. In addition, coding literacy is also important to collaborate with others and participate in developing projects, so I think it is possible to set up a programming community where programmers are encouraged to create and maintain projects together and can interact, exchange ideas, seek advice, get support and help.

Reading these papers has given me a whole new understanding of the concept of programming literacy and has given me a lot of ideas that perhaps have yet to be proven, but I think programming will become more accessible in the future.

Reference：

Vee, A 2017, Coding Literacy : How Computer Programming Is Changing Writing, MIT Press, Cambridge. Available from: ProQuest Ebook Central. [6 March 2023].