目录

[摘要 2](#_Toc2206117)

[Abstract 2](#_Toc2206118)

[Introduction 2](#_Toc2206119)

[Project Overview 3](#_Toc2206120)

[Project Background 3](#_Toc2206121)

[Text Background 3](#_Toc2206122)

[Translation Procedure 4](#_Toc2206123)

[Pre-translation Preparation 4](#_Toc2206124)

[During the translation 4](#_Toc2206125)

[Post-translation 4](#_Toc2206126)

[Analysis of the Translation 4](#_Toc2206127)

[The Content of the Text 4](#_Toc2206128)

[The Characteristics of the Language 5](#_Toc2206129)

[The Principle of Translation 5](#_Toc2206130)

[Difficulties and Solutions 6](#_Toc2206131)

[Lexical Level 6](#_Toc2206132)

[Transliteration 6](#_Toc2206133)

[Annotation 7](#_Toc2206134)

[Syntactic Level 7](#_Toc2206135)

[Free translation 7](#_Toc2206136)

[Amplification 8](#_Toc2206137)

[Division 8](#_Toc2206138)

[Combination 9](#_Toc2206139)

[Summary 9](#_Toc2206140)

[Problems 9](#_Toc2206141)

[How to translate “Introduction” 9](#_Toc2206142)

[Whether translate punctuation or not 9](#_Toc2206143)

[Reflection 10](#_Toc2206144)

[Conclusion 10](#_Toc2206145)

[Appendix 10](#_Toc2206146)

[Acknowledgement 10](#_Toc2206147)

[Bibliography 10](#_Toc2206148)

# 摘要

本篇报告以科普读物Digital Human一书中的10-33页为语料，结合美国翻译理论家尤金·奈达的功能对等理论，对翻译过程进行的详细阐述。同时，针对翻译中的难点提出相应的解决办法，总结翻译科普读物运用的策略与方法。

这篇报告主要分为四个部分：第一部分主要关于项目介绍、文本背景以及翻译的准备；第二部分涉及源文本内容、语言特色的分析和翻译理论的确定；第三部分则从词汇、句子两个层面讨论所采用的翻译策略和方法；最后一部分从翻译中的问题及收获两个方面对整个翻译过程进行总结。

本次翻译实践为笔者提供了了解科普类文体和金融科技相关知识的契机，提高了笔者的翻译水平及应用翻译理论进行翻译实践的能力。同时，通过总结翻译过程中运用的策略与方法，期望能够对同类型翻译工作起到一定的借鉴作用。

关键词：科普，功能对等，翻译策略与方法，翻译报告

# Abstract

This report is based on the 10-33 pages of Digital Human, a popular science book. Combined with the functional equivalence theory of Eugene Nida, it elaborates on the translation process. At the same time, it proposes corresponding solutions for the difficulties. What’s more, it summarizes the strategies and methods used in translating the popular science book.

This report is mainly divided into four parts. The first part is about project introduction, text background and translation preparation. The second part deals with the content and language and the guided translation theory. The third part discusses translation strategies and methods from words and sentences. The last part summarizes the entire translation process from some problems and reflection.

The author has an opportunity to understand the knowledge of popular science book and fintech. This translation project improves the author's translation ability to apply translation theory for translation practice. Moreover, the report is expected to have reference action to the same type of translation work.

Keywords: popular science, functional equivalence, translation strategies and methods, translation report

# Introduction

Digital Human can help readers understand finance and technology. The first chapter can let readers understand the relationship between finance and technology. Finance and technology are independent of each other, but they are inseparable. Technology can promote the advancement of finance, and finance can also hinder the development of science and technology.

Since ancient times, scientific knowledge has never faded from people's sights. With the advancement and development of science and technology, scientific knowledge has become increasingly important. Furthermore, it has already affected people's daily life in a subtle way. Spreading and popularizing scientific knowledge has also become an inevitable trend of society. Mastering scientific knowledge can broaden people's horizons and enrich people's daily life.

Four parts are included in the whole report. The first part is introduced from the project background, the original background, and the translation preparation and process. The second part is based on content, language features and translation theory. In this part, it describes the functional equivalence put forward by Nida. The third part illustrates the translation strategies and methods used at the level of words and sentences. In the lexical level, the method of amplification, transliteration and annotation are used in translating. In synaptic level, it focuses on free translation or liberal translation. The methods, amplification, combination and division, are used to solve the translation difficulties. Finally, some problems and gains encountered in the translation process are summarized.

# Project Overview

## Project Background

The translated project is a popular science book, Digital Human. It need translate the source text into Chinese. The requirement of time is from September 17 to October 21, 2018. Actually, it spent 33 days finishing the translation project, from Sep 17 to Oct 19. During the time, the tasks of translation and reviewing are completed. Then, typesetting the translation is in accordance with Chinese habits. The target audience for this translation is a Chinese reader interested in popular science books. In addition, the person who wants to know about fintech can also read the book.

The project can provide Chinese readers with a new popular science book. In view of the small number of excellent popular science books in China and the difficult situation of quality products, the translation of some excellent foreign science works has become a convenient and effective way to solve this problem. Through this book, Chinese readers can understand the relationship between finance and technology. What’s more, the translator can strengthen the knowledge of finance and technology after translation.

Meanwhile, the translator hopes that this book can bring some innovative writing ideas to authors. And it will lead to more popular science book suitable for adults. In addition, domestication and free translation used in translating can provide help for others.

## Text Background

Digital Human is a book about finance and technology published by Xiaoxiao Publishing House. Chris Skinner, the author of *Digital Human*, is best known as an independent commentator. The author of *Digital Bank* and *Valueweb* is him, as well. He is the Chair of the European networking forum the Financial Services Club. He is also Chief Executive of Balatro Ltd and a co-founder of the website Shaping Tomorrow. Additionally, he is as a regular commentator on BBC News, Sky News and Bloomberg.

The whole book of Digital Human is divided into two parts. One is about finance and technology. And the other is mainly based on Ant Financial for in-depth analysis and discussion. The author translates page 10 to 33, introduction and first chapter of the book. In the Introduction, Chris Skinner begins with his own travel experience. It leads to the importance of finance and technology in promoting the development of the times. This first chapter describes the five ages which human have experienced, are experiencing and will experience. The five parts are around the new type of money used by people in each age. They are barter, coins, paper, chips and an unknown type in the future.

## Translation Procedure

### Pre-translation Preparation

There were four days totally spent to do the preparation of translation. In order to achieve the accuracy of translation, the author did not translate directly. The first and foremost thing is to read the original text and collect text-related materials. The translator used a half day to find more details of the author and the book. Amazon and Wikipedia are helpful to know the basic information. The second step was to analyze the content of text and the characteristics of writing. Third, determining which translation theory is to guide the translation. Fourth, TMXmall and LingoSail TermBox were used to extract and translate terminologies.

### During the translation

Next, Foxit Reader was used to convert the format of original text, and the pre-translation got done through Google Translate. Finally, importing the text and glossary through MEMOQ, it could be exported the text with RTF format. Guided by functional equivalence, the translation depends on free translation. At the same time, translation techniques such as addition and omission were used. The purpose was to be closed to the writing style and the language characteristics of popular science books possibly. Then the translator got a support from THE ENGLISH-CHINESE DICTIONARY. In addition, The Dictionary.com, google and bing online translation, which provide the most basic and latest information from the internet, are also used.

### Post-translation

Considering the readers’ linguistic features, it cost fourteen days to revise the first draft. The draft had been reviewed for five days. It paid 6-day for the finishing of the final draft. According to the typesetting of the book, the translator used Photoshop to present the translation. This step did not accomplish until 4 days later. In the end, the project was completed two days in advance.

# Analysis of the Translation

## The Content of the Text

In the introduction, the author points out the importance of finance and technology. The turning of Internet is connecting 7.5 billion people around the world through mobile phone. Everyone has chance to communicate with others and gain the opportunity of trading. The possibility is equal for everyone obtaining wealth.

The first chapter shows that finance and technology are both independent but interact with each other. Five ages are described in the chapter.

In the first age, it describes the history of first ancestors of mankind in Africa. Then, individual human beings change to groups gradually, because of sharing common beliefs. They work together to build civilization.

The second age tells that under the influence of common belief, human beings began to live in groups and adapted to larger groups. At this time, the Sumerians proposed to invent the currency as a social and economic control system. This is the start of currency implementation.

In the third, the industrial revolution advances the appearing of new forms of money. The original currency, such as coins and stones, is extremely inconvenient and hinders the development of trade. Banknotes and cheques realize the easier value exchange. Thence, the new currency promotes the development of the industrial revolution.

The fourth era is the Internet age. Computer shortens the distance of time and space. Mobile wallet, a new form of value exchange, has led to the development of areas where financial services are lacking. The new form of currency weakens the role of the bank, but it does not replace the bank. Our human will still be in the Internet age now and in the coming decades.

In the fifth age, the author imagines the future monetary form. Finance and technology are inextricably linked. The development of science and technology promotes the advancement of finance, and financial concessions counteract the progress of science and technology. They are independent and interact with each other.

## The Characteristics of the Language

Due to the purpose of popular science book, its scientific nature is the first. It is only to promote and popularize scientific and technological knowledge to the public in a popular and understandable language (郭建中,2007: 85). The language Chris Skinner used to introduce the knowledge of finance and technology is easy to understand for readers.

From the words level, many proper nouns are used in the text, including names of famous people, cities and companies. For example, “I have explored the caves of the Cradle of Humankind in South Africa, Roman remnants of Baalbek in Lebanon in the Fertile Crescent and the West Lake of Hangzhou, China.” From the sentence level, the author often uses long sentences, mainly composed of attributive clauses, adverbial clauses, and apposition clauses. In addition, the author also uses elliptical sentence. For example, “Historically, man had been nomadic, searching the lands for food and moving from place to place across the seasons to eat and forage.”

## The Principle of Translation

The translation of popular science texts emphasizes the reader's reaction, which coincides with the functional equivalence theory proposed by the famous American translator Nida. Functional equivalence follows the principle of equivalent effect, that is, the relationship between the receptor and the message should aim at being the same as that between the original receptor and the source language message(Nida, 2001:86). It attempts to render receptor words from one language to another, and caters to receptor’s linguistic competence and cultural needs.

Eugene A. Nida is a famous American linguist, Bible research expert and translation theorist. His translation theory has a profound influence on the translation industry in China, and the most influential one is his functional equivalence theory.

In 1964, Nida first proposed in *Toward a Science of Translating* the concept of "equivalent situation" and "dynamic equivalence". In 1969, it was mentioned in *The Theory and Practice of Translation* with Charles R. Tabor. The so-called formal correspondence, that is, the formal features of the source language text, is copied to the target language text invariably.（Nida and Tabor, 2004:203）；The so-called dynamic equivalence, that is, the psychological response of the target text reader and the source text reader is similar (Nida and Tabor, 2004:202). The meanings of functional equivalence and dynamic equivalence are basically the same. They all emphasize that the information obtained by the recipient of the target text from the target text should be the same as the information obtained by the recipient of the homologous text (Nida, 2001:87).

Functional equivalence emphasizes that the target text and the source text should be equal in content, and the form should be as equal as possible. The words in *DIGITAL HUMAN* are frequently used in daily life. Therefore, the translator also need choose some familiar words to express the author’s meaning. Guided by the theory, translators can handle the choice of translation strategies flexibly, improving the translator's subjective position in the translation process and expanding the scope of text translatability. Thus, in the translation process, the translation strategy of domestication is mainly adopted. To help the reader to better understand the contents, the translation of words and sentences are closer to the target reader’s language habits. And the strategy can enhance the readability and coherence of the translation.

# Difficulties and Solutions

## Lexical Level

### Transliteration

Transliteration is a mapping from one system of writing into another. Transliteration attempts to be lossless, so that an informed reader should be able to reconstruct the original spelling of unknown transliterated words. To achieve this objective transliteration may define complex conventions for dealing with letters in a source script which do not correspond with letters in a goal script.

***e.g.1***

***ST:*** Maybe it will be the Googles, Baidus, Alibabas and Facebooks or maybe it will be the Prospers, Lending Clubs, Zopas and SoFis.

***TT:*** 或许是谷歌（Google）、百度（Baidu）、阿里巴巴(Alibaba)和脸书（Facebook），普罗斯伯（Prosper）、冷丁俱乐部（Lending Clubs）、佐帕（Zops）和索菲（SoFi）。

***Analysis:*** Through the information searched from the Internet, Prosper is a is a P2P (person-to-person) online lending platform website in the United States, ranking around 20,000 in the world. So is Lending Club. Zopa, established in 2005 in the UK, is the world's first P2P online lending platform. It is the largest online lending platform in the UK and Europe. SoFi is an abbreviation of Social Finance. It is the US vertical P2P platform, focusing on student loans. Among of them are not familiar to Chinese readers. To be honest, they would know Huabei (花呗) more in China. Because of unfamiliar, it can deepen their impressions by transliteration.

### Annotation

There are many differences between English and Chinese cultures. Therefore, some cultural words in English have no equivalents in Chinese. This forms a vacancy in the meaning of words. In this case, English-Chinese translations often use the method of filling to make up for the vacancy. Another situation is that a proper noun has multiple translations. In this case, using the method of annotation would not cause misunderstanding and is easy for the reader to understand.

***e.g.1***

***ST:*** Some might claim it dates back to Alan Turing, the Enigma machine and the Turing Test, or even further back to the 1930s when the Polish Cipher Bureau were the first to decode German military texts on the Enigma machine.

***TT:*** 有人可能会说，它可以追溯到艾伦·图灵（Alan Turing）、恩格玛（Enigma）计算机和图灵测试（Turing Test）的时代，甚至可以追溯到20世纪30年代，当时波兰密码局（Polish Cipher Bureau）是第一个用恩格玛计算机破解德国军事文件的机构。

***Analysis:*** “Alan Turing” can be translated as “艾伦·图灵” or “阿兰·图灵”. “Enigma” can be translated into “恩格玛” or “英格玛”. In these conditions, the readers may know one translation while do not know another. Using annotation can make a convenience for the readers to understand.

## Syntactic Level

### Free translation

Free translation, also called liberal translation, stresses on the meaning of the original text, while not closely follow the form, structure or rhetoric of the original text. But free translation cannot delete or add the content of the original text casually.

***e.g.1***

***ST:***One in eight Americans officially lives in poverty, translating into a figure of 43 million people in 2015, whilst one in five British people lives in poverty. Around the globe, almost half of the world’s population lives in poverty.

***TT:***

(literal translation)

官方数据表明，八分之一的美国人生活在贫困中，2015年的人口数量达到4300万，五分之一的英国人生活在贫困中。在全球范围内，世界上几乎一半的人口生活在贫困中。

(free translation)

官方数据表明，在美国，有八分之一的人生活贫困，2015年这一数字达到了4300万；在英国，五分之一的人有类似情况。放眼全球，几乎一半的人生活在贫困之中。

***Analysis:*** In literal translation, the sentence structure is closer to the original text, but the the repeated words makes this sentence lack of readability. In free translation, the expression of sentence is more in line with the reader's language habits, and makes the sentences more fluent and readable.

### Amplification

Amplification is the addition in the target text of words that can express the meaning more accurately.

***e.g.1***

***ST:*** Money didn’t replace bartering; it diminished it. Banking didn’t replace money; it diminishes it. Something in the network age isn’t going to replace banking but it will diminish it.

***TT:*** 货币并没有取代物物交换，只是减少了物物交换的频率；银行并没有取代货币，只是减少了货币的使用。网络时代的某些东西不会取代银行业，但会削弱银行业的作用

***Analysis:*** The author used some pronouns in the sentence to replace the things that appeared in the previous sentence. Connecting with the previous sentence, the author said “the ‘something else’ doesn’t replace what was there before”, then the “it” in this sentence can be well understood what it refers to. In addition, the author omits some words in the original text that are implied and unspoken in the original text. Therefore, when translating, it need be translated to ensure the completeness of the meaning.

***e.g.2***

***ST:*** One part of the group would then follow one alpha male and another part the other.

***TT:*** 该群体的一部分会跟随一名男性，另一部分则拥护另一名。

***Analysis:*** When translating, adding conjunctions can make the structure more complete and the language more fluent. In the source text, the sentence is a parallel sentence. While in Chinese, it is expressed as a turning sentence would be better.

### Division

Splitting is to make a long and complicated sentence turn into some shorter and more simple sentences, usually used for English-Chinese translation.

***e.g.1***

***ST:*** Farming resulted in abundance in the good years, but when there was drought, no food was stored because there was no way to encourage farmers to store their over-production in the good years to cover the bad years.

***TT:*** 丰收之年，农业收成喜人；但在干旱时节，却没有充足的粮食储备。这是因为没有能够鼓励农民的办法，让他们在丰收年储存多余的粮食，用以弥补歉收

***Analysis:*** In English, long sentences are used more frequently, while in Chinese, they prefer to short sentences. So, the long sentences are often translated into several short sentences.

***e.g.2***

***ST:*** According to his theory, all other human forms peaked in tribes with a maximum of 150 members, about the maximum size of any ape colony, because with this sized group, too many alpha males existed and the order of the group would fall apart.

***TT:*** 根据他的理论，其他人类形态在部落中达到顶峰的时候，最多有150人，大约是任何猿类群体的最大规模。因为在这样的规模中，如果有太多的阿尔法男性，群体秩序就会分崩离析。

***Analysis:*** Actually, this is a very long sentence, including post-attribute and cause adverbial clause. The sentence can be translated into two short sentences. One is to tell what is “his theory” about, the other is to answer why the maximum is no more than 150 members. This is more in line with the speaking way of Chinese readers.

### Combination

The syntactic method is to translate two or more simple sentences or one compound sentence of the original text into a single sentence.

***e.g.1***

***ST:*** This new massive filed was flat for hundreds of miles and the apes that inhabited this land suddenly found there were no trees to climb. Instead, just flat land and berries and grasses.

***TT:*** 这片新的土地一望无垠，生活在这里的猿类突然发现没有树木可以攀爬了，取而代之的是平坦的土地、浆果和草。

***Analysis:*** In the previous sentence, the apes found that the filed was no trees to climb. In contrast, they found there were flat land and berries and grasses. Making the two sentences together can let the sentence become a turning sentence. Thus, it would be more interesting when reading the book.

***e.g.2***

***ST:*** The skeleton presents a small skull akin to that of most apes, plus evidence of a walking gait that was bipedal and upright, akin to that of humans and other hominids. The combination supports the view of human evolution that bipedalism preceded increase in brain size.

***TT:*** 这副骨架具有类似猿的脑容量和类似于人类的二足直立行走方式，支持了人类进化争论中直立行走在脑容量之前的看法。

***Analysis:*** The first sentence is about the details of the skeleton. The second sentence is about the significance of the skeleton. So connecting the two sentences can make the whole translated sentence more coherent.

# Summary

## Problems

### How to translate “Introduction”

In Chinese book, the word “Introduction” have different meanings. It can be “序言”, “引言”and “前言”. “序言”is the text written before the body of the work is usually the guide and description of the book, such as the intention of creation, the principles of creation, the process, and things related to the publication of the book. “引言” is also called “前言”, “序言” and “概述”. It refers to the opening remarks of the symposium and the seminar. Apart from this, it is often as the beginning of scientific papers, put forward the issues to be studied in the text, and guide readers to read and understand the full text. “前言”mainly describes the basic content, the intention of the book, the book-making process, the academic value and the introduction of the translator. “前言” is also called “序言” and “引言”. Practically, it is exhausted to choose which one is better. In the end, the translator chose “引言” as the article. The reason is “引言” can be as the beginning of scientific works. Though the translation of the word is decided, the translator still does not know how to distinct the three word.

The translation of punctuation marks

Punctuation marks are an integral part of the original text. They are combined with the original text to express the meaning of the author. In Digital Human, Chris Skinner uses dashes, colones and question marks, except for period and comma.

According to Xie Tianzhen, he says “ punctuation contains some independent meanings that cannot be included in the text. In the process of translation, the meaning of punctuation may get changed from one language to another.” That some punctuation marks are copied from the source text into another language is inappropriate. Seriously, it will even damage the original content that the translation wants to convey.

From Xie’s view, “if a responsible translator wants to express the original text information as accurately and completely as possible, then he naturally has the responsibility to translate the punctuation marks with the unique information that cannot be replaced by words”.

***e.g.1***

***ST:*** That’s over three billion people living on less than $2.50 a day. Of those, one in three—1.3 billion people—lives in extreme poverty, living on less than $1.25 a day.

***TT:*** 超过30亿人每天生活费不到2.50美元，其中三分之一的人口（13亿人）极度贫困，每天生活费不足1.25美元。

***e.g.2***

***ST:*** Hence, religion became a key part of mankind’s essence of order and structure, and our leaders were those closet to our beliefs: the priests in the temples.

***TT:*** 因此，宗教成为人类秩序和结构本质的重要组成部分，而我们的领袖——寺里的祭司是最接近我们信仰的人。

## Reflection

With the rapid development of science and technology and the accelerating process of globalization, popular science works as a medium of scientific and technological communication are playing an increasingly important role. Practically, a considerable part of popular science works are imported from foreign countries.

The current science in China is very backward. We can not get a science reading that affects the world. We don't have as great a great scientific work as *Souvenirs Entomologiques*, *The Flammarion book of astronomy*, *What is Life* and *The Chemical History of a Candle* (Wu, 2018:574-575). The reason why our science is backward is that apart from the backwardness of science and technology, there are still many misunderstandings about the knowledge of science in cultural, academic and publishing circles. The current status of popular science is far from what we need, and it would take a lot of time to go a long way.

From the task and this report, the translator got some experience and enlightenment. First, a good translator should take all factors into consideration. Before translation, translators should know what kind of source text is, the writing style of the text and the readers of the book. Second, an excellent translator should have a solid language ability foundation and abundant cultural knowledge. Because of the lack of these, some difficulties were faced in the translation process and were spent much time in solving.

It is certainly that there exist some mistakes in this report due to the limitation in both time and knowledge. This report is expected to provide a hand to those who do the same translation work and study popular science text translation.

# Conclusion

Guided by functional equivalence theory, the translations is mainly about free translation. It costs 31 days to complete the translation project. This report can be divided into four parts. First, project overview includes the project background, the text background, and the translation procedure with time management. Then, through the analysis of source text, the characteristics and writing style are introduced. Third, from lexical and syntactic level to show strategies adopted in translation, such as amplification and division. After that, the translator shows the unsolved problems and a reflection from the project.

Of course, this translation project brings some inspiration. It may give Chinese author some ideas to show more popular science books. Though this kind of books is not popular in China, there are not many excellent science books either. Some publishing house introduces foreign excellent science works to China. It diversifies the type of books and expands the scope of choice of Chinese readers. It hopes that Chinese authors would create diverse popular science books.

Although this translation project is completed successfully, some problems are still hiding in the translation. It need find more information and consider more solutions to solve the problems.

# Appendix

# Acknowledgement

# Bibliography

[1] Nida, Eugene A. Language and Culture: Contexts in Translating. Journal of Shanghai: Shanghai Foreign Language Education Press, 2001.

[2] Nida, Eugene A. and Tabor, C.R. The Theory and Practice of Translation. Shanghai: Shanghai Foreign Language Education Press, 2004.

[3] 郭建中. 科普翻译的标准和译者的修养[J]. 中国翻译. 2007(06)

[4] 武际可. 科普是理学家不可旁贷的责任. 力学与实践,2018,40(5):574-575