



# Journal of Applied Sciences

ISSN 1812-5654

**science**  
alert

**ANSI***net*  
an open access publisher  
<http://ansinet.com>

## “Crowdsourcing” or “Witkey”, Which Leads?

<sup>1,2</sup>Lin Sufen, <sup>2</sup>Ouyang Zhonghui and <sup>1</sup>Lin Feng

<sup>1</sup>Huaqiao University, Quanzhou, 362021, People’s Republic of China

<sup>2</sup>Quanzhou Normal University, Quanzhou, 362000, People’s Republic of China

---

**Abstract:** “Witkey” and “crowdsourcing” are two words referring to the same real life phenomenon. They are both used in the academic world, but “witkey” is hardly used in English academic papers. The study compares the coinage, the original research of the words and their use frequency in Chinese and English academic papers. It finds that the use of “crowdsourcing” tends to be more popular and it also suggests that the integrative study of “witkey” and “crowdsourcing” papers is necessary for an overall study of the phenomenon.

**Key words:** Witkey, crowdsourcing, comparative study

---

### INTRODUCTION

In research areas, scholars may have almost the same novel ideas at almost the same time. The coinage of the words “witkey” and “crowdsourcing” is of the rule. They are words coined by the Chinese scholar Liu Feng (2006) and American Journalist Jeff Howe (2006) respectively. They almost have the same meaning, but they do have different word forms used. “Crowdsourcing” or “witkey”, which leads? It is very interesting when searching by the word “witkey” in the Web of Science, getting no papers at all. Web of Science provides researchers, administrators, faculty and students with quick, powerful access to the world’s leading citation databases. Its authoritative, multidisciplinary content covers over 12,000 of the highest impact journals worldwide. However, searched by “crowdsourcing”, more than one hundred papers are obtained. It seems that the word “witkey” is not popular in the English research world, or we may even say the word is not accepted world widely. Then clicking the word “witkey” or “crowdsourcing” in CNKI searching engine, we find out papers about the topic by both. CNKI is China National Knowledge Infrastructure for short, a quick and powerful China knowledge resource integrated database, covering over 8200 China journals with full text. It seems to show that the word “crowdsourcing” is much more popular to be used than “witkey” which appears only in Chinese research papers. Only the integrated study of the “crowdsourcing” papers and the “witkey” papers can give us an overall view of the field. This study aims to compare the use of “witkey” and “crowdsourcing” in Chinese journal papers and English journal papers, answering the question in the title.

### THE COINAGE OF TWO WORDS

**Coinage of “Witkey”:** “Witkey” was first offered by Chinese scholar Liu Feng (2006) on the BBS of Postgraduate School of Management in Chinese Academy of Sciences. At that time he set out to establish Witkey website to match the specialist resources of Chinese Academy of Sciences with the technological problems encountered by enterprises. He found that solving problems via internet with rewards will be a new research domain and put forward the witkey theory. Liu Feng (2006) pointed out in his “The Analysis of Witkey Business Modes” that “witkey” refers to the person who solves the offered problems with their own knowledge, skills and experiences---the person is of wit to solve problems, so he or she is powerful. According to Liu Feng, “witkey” originally refers to persons. Literally speaking, it means “powerful guest” in Chinese. In English language, it is a compound word combining “wit” with “key”, referring to “the key to wisdom”. It also represents witkey websites of webpages in Chinese. As time goes, it can be used not only as a noun but also as a verb. According to Fang and Zhang (2006), when it is used as a noun, it means the person who uses their technology, skills and experience to solve the problems via internet, or it means the things such as witkey website or web pages; when it is used as a verb, it is an action or a performance of editing or managing witkey websites or witkey web pages in a question-and-answer(interactive) mode to get returns. “Witkey” used as a noun or as verb is also popular in China now.

Liu Feng gives us an overall view of “witkey”, which includes the following:

- Witkey mode coming from Bulletin Board System (BBS)
- The definition of witkey mode and its pattern: Witkey mode is a new internet mode of getting returns by providing knowledge, wisdom, experience, skills and etc., by internet, which is an operation of mutual benefit and its pattern consists of reward system, individual wit map, enterprise wit map, trade platform of intellectual products and credit system
- The realization of witkey mode and its flow chart: There are three ways to realize witkey mode: rewards (the question is priced and the witkey gets the bidding by offering answers), the sale of knowledge (intellectual products are stocked on internet and the person who needs the related answer searches the answers by trade), witmap (a search engine with the integration of a person's location, interests or expertise contact information and witkey space); its flow chart goes from reward witkey website to knowledge sale witkey website and witmap is a leading result of the two types of websites

His famous equation of witkey business mode:

$$W = (U+Q+A+P) \times Cr$$

W : witkey;      U : User;  
Q : Question;    A : Answer;  
P : Pay;          C : Credit.

- The significance of witkey: Witkey is a network of human brains; knowledge is of value which includes money, a sense of pride, achievement and so on
- The problems of witkey comprise the pricing and classification of intellectual products, the demonstration and trial of the products, intellectual property and cheating problems.

**Coinage of "Crowdsourcing":** The word "crowdsourcing" is firstly provided by American journalist Jeff Howe in Wired Magazine (2006). In the opening of Jeff Howe's "The Rise of Crowdsourcing", "remember outsourcing?... The new pool of cheap labor: everyday people using their spare cycles to create content, solve problems, even do corporate RandD" (Howe, 2006a). Obviously, Howe coined "crowdsourcing" based on the word "outsourcing". Outsourcing relies on professionals to solve enterprise problems while crowdsourcing depends on the power of crowds. Thus the pool of problem solvers is extended, which can referred to professionals or masses of people. Moreover, the use of crowd may be cheaper

than the use of professionals which appears in an outsourcing way. Howe takes cost into initial consideration when using "crowdsourcing". "Crowdsourcing" can be a concept (noun) and "crowdsouce" can be used as a verb, referring to the action of crowdsourcing. Howe used some crowdsourcing examples to demonstrate the advantages of crowdsourcing, such as Stockphoto and innocentive. Rewards; the stock of intellectual products were also illustrated in his examples though they are not so theoretical in a summarized way as Liu Feng. Howe said in his blog, "simply defined, crowdsourcing represents the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined network of people in the form of an open call" (Howe, 2006b). The definition demonstrates an untraditional employer-employee relationship, that is to say, the employees may be an uncertain individual or group of people. Besides, the "crowdsourcing" is not necessarily related to internet in Howe's definition, which is different from Liu Feng's "witkey".

In 2008, Howe (2008) published his book "Crowdsourcing: Why the Power of the Crowd is Driving the Future of Business". The book is furnished with a lot more examples and some conclusions of crowdsourcing. The book can be divided into two parts: Chapter1 to Chapter 5 covering the crowdsourcing examples and the rest showing the power of crowd and their influence from economics perspective.

**Contrast of thoughts by two offerers:** "Witkey" and "crowdsourcing" are words almost overlapping with each other. Liu Feng offered "witkey" mainly on a information technology base while Howe coined "crowdsourcing" in a economics perspective. Liu's "witkey" explains more about the internet impact on witkey, but Howe highlights the cost-saving of crowdsourcing. They both admit the brilliant power of the masses. It is obvious that Chinese scholar offered the word months earlier than Howe. Besides, Liu Feng introduced the word in a more summarized and overall theoretical way almost two years earlier than Jeff Howe who published his book "Crowdsourcing: Why the Power of the Crowd is Driving the Future of Business" with rich examples in 2008. Liu's witkey theoretical framework seems to be more indispensable and complete, including definition, modes, flow charts, equations and problems of witkey with fewer witkey examples. In contrast, Howe's "crowdsourcing" focuses more on crowdsourcing examples from which some simpler theories come out. Therefore, Liu's works gives us an overall technical or academic view of "witkey" and

**Table 1: The contrast of “Witkey” and “Crowdsourcing”**

	Witkey	Crowdsourcing
Author	Liu Feng (2006) (China)	Jeff Howe (America)
Time of coinage	2005	2006
Place of coinage	BBS	Wired Magazine
Perspective of coinage	Computer	Economics
Publishing time of further research	2006	2008
Publishing place of further research	MA. Dissertation	Book
Writing style of integrated theory offered	Theories with fewer examples	Examples with fewer theories
<b>Theory Contrasted</b>		
(a) Origin	BBS	The rise of amateurs (crowdsourcers); open source software movement (production mode); internet (production tool); community (production organization)
(b) Definition	Noun: Persons or websites or web pages Verb: Using one’s specialty to get returns via internet	Noun (crowdsourcing): A business mode Verb (crowdsourcing): An action of outsourcing a company’s to an undefined group of people
(c) Modes	Reward: The sale of knowledge; witmap (with equation and flow chart)	Collective intelligence; creation; voting; funding (without equations or flow chart)
(d) Problems	Pricing and classification of intellectual products; the demonstration and trial of the products; intellectual property and cheating problems	Selection of the right mode (see ten rules for crowdsourcing by Howe); selection of the crowdsourcing results; leadership of the crowd etc.

Howe’s unfolds a picture of crowdsourcing phenomenon in real life. They both make their contribution to the establishment of a new business mode. Their works is complementary. The contrast of Liu Feng’s “witkey” and Howe’s “crowdsourcing” is summarized in Table 1.

**COMPARISON OF ACADEMIC TREND OF “WITKEY” AND “CROWDSOURCING”**

As is mentioned in the introduction, “wikey” and “crowdsourcing” is used separately as searching themes and by both research papers can be obtained. In addition, academic trend searching engine (CNKI 3.0) is used to find the trend of the word “witkey” and “crowdsourcing” in Chinese research papers. The searching date is 22nd January, 2013 (The data in this study all were got on the day). The two line charts are displayed in Fig. 1 and 2.

According to the two line charts, it can be clearly seen that the use of “witkey” was much popular than “crowdsourcing” in Chinese academic domain before 2011. Over 40 papers academic focus on “witkey”. In the year of 2012, the number of “crowdsourcing” papers overtook those of “witkey” papers. Overall, the number of “crowdsourcing” papers sees an upward trend, but that of “witkey” papers has ups-and-downs tendency.

When searching Chinese journal papers with the title including “witkey” and “crowdsourcing”, respectively in CNKI, 183 “witkey” papers and 94 “crowdsourcing” papers by year were found. When using “witkey and crowdsourcing” as co-occurrence words to search the concerning journal papers, the result

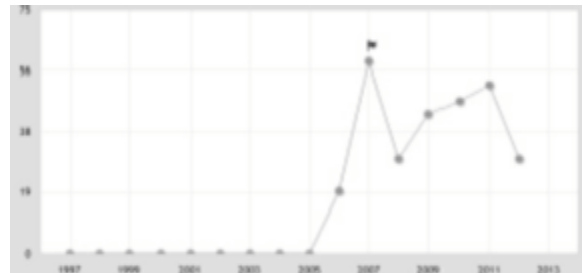


Fig. 1: “Witkey” academic trend (CNKI academic trend searching result)

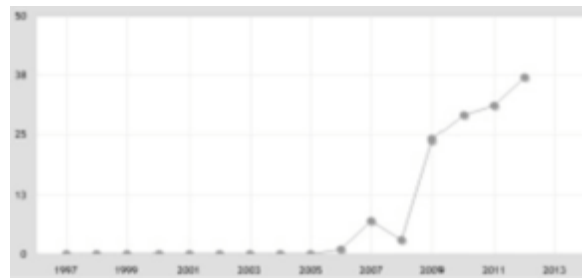


Fig. 2: “Crowdsourcing” academic trend (CNKI academic trend searching result)

was nothing. That is to say, there was no overlapping papers counted in the previous search of “witkey” and “crowdsourcing” papers. Table 2 are of Chinese Papers with the Title Including “Witkey” and “Crowdsourcing” by Year.

Table 2: Chinese papers with the title including “Witkey and “Crowdsourcing” by year

Year	Crowdsourcing	Witkey	Sum
2006	1	16	17
2007	5	45	50
2008	2	16	18
2009	16	28	44
2010	22	27	49
2011	19	32	51
2012	29	19	48
Sum	94	183	277

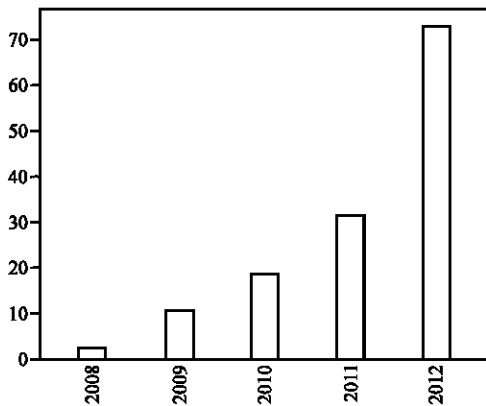


Fig. 3: “Crowdsourcing” papers in English by year papers

According to the table, it is obvious that the Chinese papers with the title using “witkey” is almost twice as many as those using “crowdsourcing”. As is mentioned in the introduction, no study was found by searching “witkey” in Web of Science, therefore, “crowdsourcing” was used to search journal papers in Web of Science, the statistics bar chart about “crowdsourcing” papers in English was concluded by year (Fig. 3).

English research papers rose constantly year by year. In the year 2012, the “crowdsourcing” English papers arrived at more than 70 papers, which are almost 1.5 times as many as Chinese papers (48, Table 2). Before 2012, the English “crowdsourcing” papers produced were lower than the corresponding Chinese papers (“witkey” and “crowdsourcing” papers). The year of 2012 may be a turning point for English “crowdsourcing” journal papers to overtake the corresponding Chinese papers. Generally speaking, the use of “crowdsourcing” used in Chinese and English papers has both an upward trend.

**CONCLUSION**

The study starts from a business mode (witkey or crowdsourcing) in real world but expressed in different words. It gives us an overall view of the coinage and original meaning of “witkey” and “crowdsourcing” as well as their use frequency. The finding turns out that the use

of “crowdsourcing” tends to be more accepted by the academic world day by day. Besides, the co-existence of two words referring to the same thing in the academic domain may call our attention to the phenomenon of the same rule, which results in the reference of the literature of the field partly, not wholly. In turn, it may have some side effects on the further research of the field, for example, repeat study. Academic world waits to see the day to come that the different words as terms referring to the same thing can meet and understand each other.

“Crowdsourcing” or “witkey”, which leads? The two words demonstrate the same phenomenon from the perspective of economics and information technology respectively. They are not competitors. Their research is complementary. The integrative study of “witkey” and “crowdsourcing” literature sheds more light on the complete study of the same phenomenon in real world.

**ACKNOWLEDGMENT**

This research was supported by the funds from: Foundation item 1 Construction Funds of Master Degree Awarded Unit of Quanzhou Normal University; Foundation item 2: Fujian university key project construction service routines "The port logistics information platform construction, Haixi prefecture", Project Number: A103.

**REFERENCES**

Fang, Y. and A. Zhang, 2006. A new internet term No. 2-Witkey. *Chin. Sci. Technol. Terms J.*, 8: 57-58.

Howe, J., 2006. Crowdsourcing: A definition. [http://crowdsourcing.typepad.com/cs/2006/06/crowdsourcing\\_a.html](http://crowdsourcing.typepad.com/cs/2006/06/crowdsourcing_a.html).

Howe, J., 2006. The rise of crowdsourcing. *Wired Mag.*, 6: 176-183.

Howe, J., 2008. *Crowdsourcing: Why the Power of the Crowd is Driving the Future of Business*. 1st Edn., Crown Publishing Group, New York, USA., ISBN-13: 978-0307396204, Pages: 311.

Liu, F., 2006. The analysis of witkey business mode. M.A. Thesis, Graduate University of Chinese Academy of Science, Beijing, China.