

## A Memetic Perspective for Collaborative Creativity Studies

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### Introduction

#### Objectives

Creativity has usually been considered as the individual capacity of generating creative ideas or products. But in today's society, collaborative creativity can be observed more and more often in many creativity-related fields, such as the development of open-source software (OSS) and the utilization of user-generated content (UGC).

In academia, the studies related to creativity have never stopped being advanced and have been extended from psychology to many other disciplines. Many scholars have identified the collaborative nature of creativity and have proposed theories to explain it. But these latest academic achievements are not reflected in the general public understanding of creativity today. For example, the dictionary (Hornby, Wehmeier, & Ashby, 2000) explanation for the word "creativity" is actually inherited from an ability definition made by Sternberg (Sternberg, 1999), and the current Wikipedia entry (contributors, 2018) for *creativity* only integrates Csikszentmihalyi's phenomenon definition (Csikszentmihalyi, 1988) to this ability definition. Both definitions were developed about 20 years ago, and both of these sources only addressed individual creativity.

Considering these quite limited definitional circumstances, this paper is trying to establish a consolidated theoretical framework for contemporary creativity studies. As well as incorporating most existing creativity theories, this framework shall cover both individual and collaborative creativity.

#### Research Questions

Unfortunately, this purpose cannot be achieved by simply putting existing creativity theories together. My work in this paper and related research advances on a way to re-interpret these theories and make them compatible with each other.

Therefore the first research question is how these creativity theories conflict with each other, and why? With a full review of the creativity literature, I realize it is because these theories were proposed from very different perspectives and with quite different emphases.

Since modern creativity studies more or less began with Guilford's influential APA address (Guilford, 1950; Sawyer, 2011), the academic understanding of creativity has been improving with new academic achievements all the time. Creativity was successively considered as individual personality (Guilford, 1950), production of creative works (Amabile, 1988), ability to produce creative works (Sternberg, 1999), social phenomenon (Csikszentmihalyi, 1988), and collaboration among individuals (Sawyer, 2007) along with more. These assertions appear to conflict with each other. But they are actually all reasonable if each are put into specific related contexts. They simply address creativity differently.

In fact, Guilford's *creativity* in 1950 referred to creative thinking only, and creative thinking was one of the three required components for Amabile's *creativity* in 1988 to proceed. Sternberg's *creativity* in 1999 referred to *creative capacity*, but what was defined was *creative product*. Csikszentmihalyi's *creativity* in 1988 tried to include both *creative individual* and

*creative activity*, but his real emphasis was *acknowledgement of creativity*. Even Sawyer's *creativity* in 2007 referred to multiple *creative activities* chained together towards a final outcome.

The second research question is what new perspective on creativity does it make sense to adopt? In order to integrate creativity theories from various perspectives into one consolidated piece, it is essential that this new single perspective will be able to re-interpret all these theories perfectly.

If I can find this new perspective, the third research question will be how creativity looks like from this new perspective, and more importantly, how shall we adjust our attitudes and policies in response to the new image of creativity.

### Theory

The new perspective I would like to propose is a closer and intensive investigation of the actual *creative outcome*. The *creative outcome* is best identified by the concept of *meme*: and thus the new name for this approach to understanding creativity is the *memetic perspective*.

From reviewing the literature, I find that modern creativity studies imply a strong tendency of pivoting creativity on the creator, which means the scholars often presuppose that the creator is the most important element for creativity. Therefore, the creative outcome becomes a natural consequence in response to this creative capacity of the creator. Unfortunately, this presumption is not always true.

It is very reasonable for studies derived from psychology to be focused on this individual creative capacity. However, when it comes to the acknowledgement of creativity or the collaborative creativity, the creative capacity of a specific individual becomes much less important to the overall creative performance or the final achievement.

Therefore, I suggest that we pivot our focus from the creator to the outcome of creativity. This suggestion is based on two reasons:

1. It is the *creative outcome* that is really pursued by human beings, not the creative capacity;
2. It is the *creative outcome* that is really assessed/acknowledged by others, not the creator or the activity.

The next step leading from this shift in perspective is to re-define *creative outcome* from the end product of creative activity to the actual *creative increment* of that creative activity. This redefinition is based on three reasons:

1. The end product doesn't reflect what is really created from a creative activity. It always includes something pre-existing in the world which shall be credited to the preceding creators instead of the current one;
2. The end product is not equivalent to the creative idea formed in the creator's mind. It is very much a reflection of that idea and is always restricted by non-creative factors such as business considerations;
3. Sometimes the creative factor or element acknowledged through the end product is not really about the end product itself. It can also be insight emerged from the perceiver's mind.

Of course, it would be beneficial if we can locate the *creative increment* for any creativity; but it is actually a much more difficult task because that increment is not clearly separable from the end product. Instead, the increment identifies the information related to the difference between the end product and the related products that predate it. Moreover, such information would be conclusively identified from the perspective of the perceivers rather than

the creator himself. Ultimately, the acknowledgement about creativity is from the perceivers' understanding, not the creator's.

In order to solve the problem of identifying the actual *creative increment*, I would like to introduce the term *meme* for a helpful dissection of the continuing formation of creative ideas.

*Meme* is a borrowed concept, but I re-define it here as “a piece of meaningful information”.

An important trait of *memes* is their recursive structure, which means that a meme consists of many other memes. This process of de-composition continues until a sub-meme is ultimately too simple to be meaningful. This trait fits the important understanding of creativity that every instance of creativity is based on something pre-existing, and the new ideas are often resulted from the combination, elaboration or transfer of existing concepts (Sawyer, 2017).

Hence, from the memetic perspective, creative activity can be re-interpreted as the process of utilizing pre-existing memes to construct new memes. Existing creativity theories can be re-interpreted in a similar manner.

This re-interpretation can be demonstrated as a dual-layered *Memetic Evolutionary Model*.

The first layer of this model represents the individual cognitive process for creativity. It is a cycled process through several stages until the creator feels satisfied with the new meme and generates a product to carry it. I call this process the *Individual Creativity Cycle*.

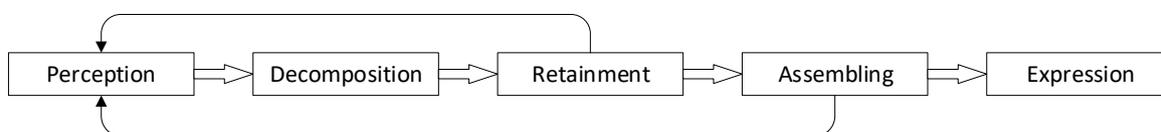


Figure 1. Individual Creativity Cycle

If we can ignore the brain's cognitive processes through focus on memes, this cycle can be simplified into a single node with *perception* as input (of pre-existing memes) and *expression* as output (of creative product).

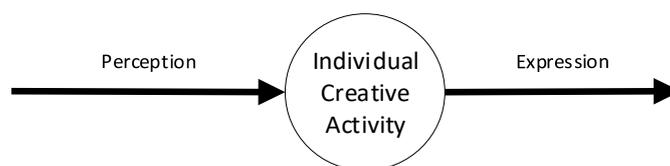


Figure 2. Individual Creativity Cycle as a node

The second layer of this model represents the collaborative process of creativity in a sociological sense. Basically, the collaborative process is a network consisting of multiple individual creative activities connected with each other through their relationship of inspiration. Memes are delivered from one cycle to another. During this process, new memes emerge and old memes evolve. I have named this network the *Inspirational Network of Collaborative Creativity*.

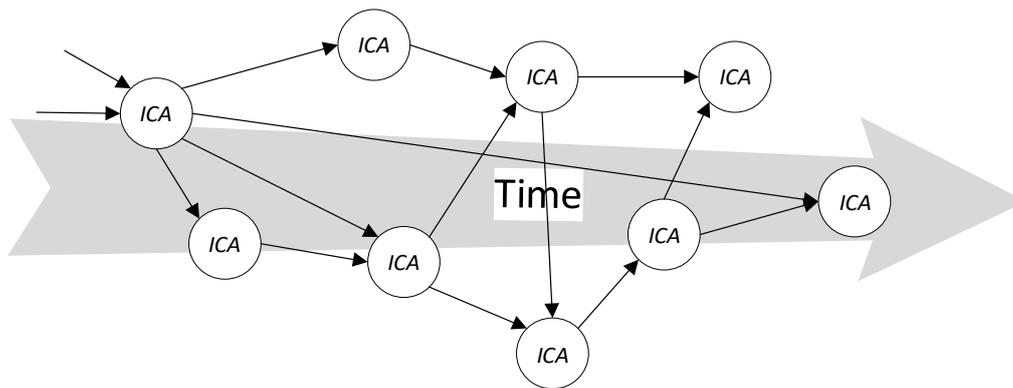


Figure 3. Inspirational Network of Collaborative Creativity

The memetic perspective and this model bring genuinely new insights into the study of creativity and it is from this perspective that has led me to re-consider multiple issues related to creativity.

### Literature Review

#### About creativity

Creativity is quite a new concept in human history: Plato denied creativity because he believed creations were merely the results of discovering or imitating the existing world; Christianity attributed the power of creation to God exclusively (Sternberg, 1999). It was until the late Renaissance that the word “creativity” was first applied to poetry, and not until 19<sup>th</sup> century when art was finally regarded as a form of creativity (contributors, 2018).

Scientific research on creativity began in earnest in the 20<sup>th</sup> century through the studies of eminent individuals (Galton, 1869; Terman, 1926), whom were indeed very creative. Early scholars often confused creativity with intelligence, until Guilford explicitly distinguished these two in his famous 1950 APA presidential address (Guilford, 1950). From that point onward, studies about individual creativity flourished mainly in the field of psychology. A few years later, Guilford proposed the concept of *divergent thinking* and directly associated it to creativity (Guilford, 1956). He then developed the *Alternative Uses Task* for the evaluation of divergent thinking, where he chose *originality*, *fluency*, *flexibility* and *elaboration* as the four primary metrics (Guilford, 1967). These metrics were adopted later by Torrance in developing his famous *Torrance Test of Creative Thinking* (Torrance, 1974), which had then become one of the most popular psychometric tests in the world for evaluating individual creative capacity under experimental settings.

During the same period, the process of creative thinking was also studied by other scholars. Gestaltists began to study *insight* from the early 20<sup>th</sup> century (Köhler, 1929). The concept of *insight* gained great attention from creativity researchers because many eminent individuals asserted that their creative ideas were often emerged automatically from a subconscious magical moment. Wallas’ *Four-Stage Model* (Wallas, 1926) included similar subconscious cognitive stages, but it also contained conscious cognitive stages which were under direct individual human control. The *Four-Stage Model* was widely adopted as well as adjusted by other scholars for describing their own reading of the creative process (Amabile, 1996; Getzels & Csikszentmihalyi, 1976; Goleman, Kaufman, & Ray, 1992; Hutchinson, 1949). Various new stages and sub-processes were proposed, which completed the academic understanding of the creative process on the one hand, but also made the theory increasingly complex and domain-specific on the other.

*In contrast to these stages models, another line of theories about the creative process* focused on the interaction between the conscious cognitive processes and those of the unconscious.

Campbell's *Blind-Variation-and-Selective-Retention Process* (Campbell, 1960) depicted three stages: the *variation* stage where a large number of novel responses were generated, the *selection* stage where the best-adapted variations were chosen, and the *retention* stage where information gained through the first two stages were retained for the next generation. This model emphasized the initiative efforts of creator as a gate-keeper for the randomly generated ideas. The *Geneptore Model* (Finke, Ward, & Smith, 1992) separated creative cognition into two groups of processes - one in charge of generating ideas and the other in charge of preparation and evaluation.

As studies advanced, researchers began to realize that creative thinking is not the same as creativity. Amabile proposed that social and environmental influences are extremely important to individuals' creative performance and thereby urged for the development of a social psychology of creativity (Amabile, 1983). She also proposed an *Individual Creativity Model*, where she identified three fundamental components for creativity to occur, namely the *domain-relevant skills*, the *creativity-relevant skills* and the *task motivation* (Amabile, 1988). 24 years later, Amabile added a fourth components to her theory, what she labelled *social environment* to reflect the recent progress in creativity studies (Amabile, 2012).

Similar componential theories can be found as Runco's *Creative Thinking Model* (Runco & Chand, 1995) and Sternberg's *Investment Theory* (Sternberg & Lubart, 1991). These models all addressed the insufficiency of creative thinking for creativity in the real world.

This complex nature of creativity made it difficult to define and led many scholars to define *creativity* indirectly, that is, from its outcome. I am inclined to think that these "*end product or innovation definitions*" (Taylor, 1988) are actually defining the creative products instead of creativity. No matter the *process* (Amabile, 1988) or the *ability* (Sternberg, 1999), as long as it can result in something "*both novel and appropriate*", it can be considered as creativity.

Such product definitions were popular in scholarship, but not left unchallenged. Csikszentmihalyi proposed a *Systems View* on creativity, where he defined *creativity* as a phenomenon resulting from the interaction between *person*, *domain* and *field* (Csikszentmihalyi, 1988). What was emphasized in this theory was the inclusion of *creative acknowledgement* into creativity. The confirmation to both *novelty* and *appropriateness* are determined after the creative process and out of the control of the creator. Consequently, creative capacity or creative activity would not be equal to creativity either.

Csikszentmihalyi's work started the line of sociological studies of creativity which focused on the emergence of creativity in society instead of the emergence of creative ideas in a creator's brain. This line of study was then pushed even further by his student, Keith Sawyer, to the notion of *collaborative creativity*.

The creativity in *Systems View* still referred to a single creative activity advanced by one creator. But when Csikszentmihalyi and Sawyer proposed the idea of *organizational creativity*, they started to question the creative contribution of the single creative activity to the "*overall innovativeness of the organization*" because the social and organizational factors appeared more significant than individual insights (Csikszentmihalyi & Sawyer, 1995). A few years later, Sawyer identified a special form of creativity – what he called *group creativity* - derived from improvisational performances such as jazz music. *Group creativity* actually emerged from within the entire improv group instead of from the head of a particular group member. This special form of *group creativity* was generalized into the concept of *collaborative creativity* later because, in fact, "*all creativity is based in collaboration*" (Sawyer, 2007).

A synthetic understanding of *creativity* can be summarized from these academic achievements over the past 80 years that:

1. *Creativity* is a concept that involves many aspects, including but not limited to *individual creative capacity*, *creative activity*, *creative product*, and *creative acknowledgement*; and
2. *Creativity* can be represented differently through individual and sociological dimensions. Individual creativity can be represented as fundamentally cognitive processes, while sociological creativity can be represented as intellectual collaboration with the latter being comprised by the former.

### About Meme

The original term of *meme* was coined by Dawkins in *The Selfish Gene* (Dawkins, 1976). It referred to an envisaged new replicator carrying cultural hereditary information. Many scholars were interested in the concept of “cultural replicator”, and, as a result, this term developed into a series of memetic theories.

One important memetic concept was the *meme complex*. As the smallest segment of cultural information, meme can be assembled with other memes to represent more complex information. This assemblage of memes was named the *meme complex* (Blackmore, 1999). From this point of view, anything in the world can be considered as a *meme complex*. Scholars even analogized human beings as an ultimate *meme complex* because we had all the cultural information stored in our brains and all our behavior can be considered as a reflection of these memes.

Another important memetic concept is the *meme vehicle*. Simply put, the *meme vehicle* can be considered as the carrier of memes. This concept connected memes with entities in the real world. We can only acquire memes by mimicking or learning from the *meme vehicles*.

These memetic concepts are the very reason why I choose to borrow the term *meme* to construct my theoretical framework for creativity.

However, the old memetic theories declined quickly after their original development principally because no one can really tell what the “*smallest segment of cultural information*” really is. Also no proof has been proven for the existence of such “*cultural hereditary information*”. Although academia stopped discussing memetic theories, the term *meme* was still in use occasionally in the public domains, such as in the cyberspace along with the rising of participatory culture from around 2000. For example, *meme* was frequently used as a jargon referring cultural symbols and social ideas that spread virally with the help of social media network.

Recently, *meme* started to arouse renewed academic. Shifman proposed the concept of the *Internet meme* in 2014, where she distinguished *meme* from *viral* as *meme* always involved re-production of circulated information while *viral* only indicated the diffusion of information (Shifman, 2014). That “re-production” is actually a form of creative activity.

### Connecting meme and creativity

Indeed, the relationship between *meme* and *creativity* is very close. The knowledge and skill required for creativity can be considered as memes (or meme complexes). The creative product can be considered as meme vehicles. Moreover, the assembling process from memes to meme complex looks very similar to the cognitive process of generating creative ideas, and the diffusion of memes among people is exactly the purpose of the in-group conversation, which was advocated by Sawyer for a more efficient collaborative creativity.

The book *The Nature of Technology* (Arthur, 2009) is a perfect example for this close relationship between *meme* and *creativity*. In his book, Brian Arthur depicted a recursive structure of technology, one where technology consisted of multiple miniature technologies. Although neither the term *meme* nor the term *creativity* were used in this depiction, it

demonstrates an exact memetic interpretation of technology, and technology is a typical representation for creativity.

### **A Case Study of Chinese Webnovel Industry**

#### **A brief introduction to Chinese webnovel industry**

The webnovel industry is an important part of the entertainment industry in China today.

In terms of business, by 2016 the estimated market size of the Chinese webnovel industry had reached 9 billion, and the total user scale had reached 0.33 billion. There are over 13 million webnovel writers in China today, 0.6 million are contracted writers who get paid for their writings

In terms of creativity, Chinese webnovel industry has become an invaluable treasure vault for the whole entertainment industry in China because of its high productivity in generating intellectual property (IP). There have been over 14 million webnovels written and published on the 40 major webnovel sites in China today. And the total volume grows at a rate of 150 million words of updating on a daily basis! Film studios, television networks, and the video game industry in China today are all enthusiastically and aggressively adapting webnovel IPs. In 2016 alone, there were 24 films and 108 TV series (including web series) on screens that were officially adapted from webnovel works, not mention or account for the countless cultural products which contained unauthorised elements “borrowed” from webnovels. Many of these adapted works have achieved great success at least in terms of revenue and audiences, the kind of success that encourages more people to participate in webnovel writing.

The *webnovel* definitionally and simply is a novel that is written, published and read primarily on the Internet. It represents quite a popular form of creative activity all around the world. However, the webnovel in China is relatively unique in comparison to other forms of online writing in other culture because it is half-professional and half-amateur: most webnovel writers participate in webnovel writing casually, but the overall production of webnovels is highly organized and regulated under the control of commercial companies whose purpose is focussed on profit.

The Chinese webnovel industry today runs as an apparatus not dissimilar to YouTube, but with a different profit and revenue generating mode. A commercial company hosts a webnovel site as a platform for reading and publishing webnovels. Everyone is free to publish their stories on these websites, but only the contracted writers can get remuneration from their VIP chapters which are not free to read. The website charges readers for consuming VIP content, and splits the revenue to contracted writers as remuneration, normally in a 50/50 revenue divide.

The subscription fee for readers of VIP content is charged per chapter normally at a rate of 2 to 5 cents per 1000 words. It is flexible for readers to choose what they pay for and because of this, a serialized writing manner has formed for the Chinese webnovel. The writer writes a few chapters every day, and publishes immediately on the websites. The readers can wait until there is enough new content to read, or chase the updates daily, much like viewers watching the daily episodes of soap opera on television. The serialization of one webnovel may last for years, a connection long enough for loyal readers to become fans, and keep subscribing to the writer’s other webnovels as they appear in serialized form.

A popular webnovel generates a great deal of money for both its writer and the webnovel site, partly from the subscription fee and partly from the future copyright royalties. The annual income of one webnovel writer can reach 120 million and this economic prospect attracts many youths to participate in webnovel writing as a career. However, the average income of ordinary contracted webnovel writer is no more than other daily jobs in China, and this does not even include the economic precarity of those webnovel writers who are not contracted. Actually, the webnovel sites earns much more than the writer from a popular contracted webnovel because

they actually own most of the copyright of their contracted webnovels as stipulated in the contracts.

The Chinese webnovel industry did not originate in this intriguing structure. In fact, the webnovel exhibited very little difference from fanfictions in other cultures when it first emerged in China in the 1990s. It started more broadly as a form of *Internet literature* on forums and BBSs first, and then turned into *webnovels* as all other forms/genres of literature withered away from the Web (Xia, 2009). Personal webnovel sites appeared from around 2000, along with concentration of webnovel content to long volume fictional novels that served mainly the interests of readers and paralleled international online fanfiction.

The game changer for Chinese webnovel was a company named SNDA Entertainment, who acquired Qidian, a rising webnovel site, in 2004 and started to invest heavily in the webnovel. Qidian then became the monopolistic platform for webnovels and thus established a series of industry standards, such as the VIP policies and the farewell system in supporting contracted writers. Without the investment and the management from SNDA, the prosperity of the Chinese webnovel industry would never have come to fruition.

### Memetic analysis of the story-composition in Chinese webnovel

The Chinese webnovel is widely praised for the boundless imagination in the stories. But in the meantime, Chinese webnovel is also constantly criticized for its obvious similarity among and between works. For example, some classic plots can be found in almost a whole range of webnovels, sometimes even recurring repeatedly in one book; the world settings and role characteristics also appear identical across webnovels in a similar genre with the only difference possibly the terminologies and the names in use.

What is intriguing is this strange phenomenon of the simultaneous co-existence of praise for imagination and criticism for similarity across webnovels. To give a better sense of this interplay of transformed creativity, I am going to conduct a memetic analysis on a few representational webnovel memes to find out what makes it creative and what makes it repetitive and derivative.

Given the limitations of the length of this paper, this analysis will only covers a few memes in operation in webnovels. The analysis below is an example of the implementation of the memetic perspective to analyse a specific creative activity, as well as demonstrating how such an analysis might lead us to re-consider issues relevant to creativity.

**A memetic decomposition of webnovel story meme.** First of all, I want to explain how I decompose the meme of “webnovel story”, and why. As I had proposed earlier, the memetic hierarchy is based on the perceivers’ understanding, which means the memetic hierarchy of “webnovel story” in my mind can be different than the hierarchy of a freshman reader, or that of a scholar in literary studies. But as my understanding is actually established based on my years of experience in webnovel reading, the memetic hierarchy I am going to propose shall be objective to a certain extent.

I decompose the meme “webnovel story” into five sub-memes: *world setting*, *motif*, *plot*, *persona* and *ideology*.

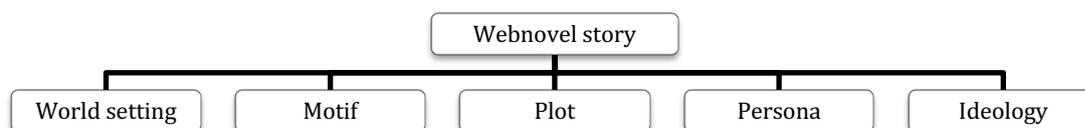


Figure 4. Memetic hierarchy of "webnovel story"

*World setting* memes are informational elements about how the world appears; *Motif* memes are informational elements about the main storyline; *Plot* memes are informational

elements related to the secondary events of the story; *Persona* memes are informational elements about main heroes, enemies, secondary characters, and so on; *Ideology* memes are informational elements about the thinking, attitudes, philosophies and the like which the writer tries to deliver through the story. Unfortunately, the graph of the full memetic hierarchy is too complex to be put in this paper, which I had put online instead.

The process of constructing this hierarchy provides me a more thorough understanding about what a meme is and how a meme evolves.

First, the complexity of a memetic hierarchy grows with our understanding of the target. For instance, I wouldn't put "ideology" as a sub-meme of the "webnovel story" meme if I hadn't read related academic literatures discussing the ideologies embedded in some webnovels (Shao, 2017); similarly, I wouldn't add a "nested worlds" sub-meme under the "world type" sub-meme beneath "world setting" sub-meme if I didn't know about the *Infinite* genre (无限流) webnovels.

Second, the relationship between the upper-meme and the sub-meme is not an owner-member relationship. I use the tree diagram only for elucidation. Indeed, the sub-meme of one meme is often a proportion or component of the complete information of that sub-meme. For example, the meme "ancient China" represents all the information about China in ancient time, but when it serves as the sub-meme of another meme, only a proportion of the information about ancient China is implied in the upper-meme.

Last but not least, there are *instance* memes and *concept* memes. A *concept* meme reflects a certain level of conceptualization, while an *instance* meme is the simple presentational information about a product. For example, "country" is a *concept* meme but "China" is an *instance* meme of that concept. The end nodes in the memetic hierarchy are all *instance* memes, and the level of conceptualization indicates how well we understand the target. For the *concept* meme "webnovel story", the most primitive understanding is to put all webnovel stories under it as *instance* sub-memes, which reflect zero understanding about what a "webnovel story" is. As more *instance* memes are designated to a *concept* meme, sooner or later, detailed information will be perceived from these *instance* memes and summarized as some new *concept* memes and thus complicate the memetic hierarchy.

**Creating XuanHuan (玄幻) worlds in Chinese webnovel.** Fantasy worlds are commonly seen in popular culture, but the XuanHuan worlds in Chinese webnovel have very unique world settings originated from webnovels.

The term *XuanHuan* in Chinese first appeared in the preface written by Shanqi Zhao (赵善琪) for the novel *Luna Devil* (《月魔》) in 1988. Zhao invented this term to indicate the hybrid nature of this novel, but he didn't specify what it really meant.

Then in 2002, the webnovel *Journey in Piaomiao* (《飘渺之旅》) started its serialization and immediately got popular. The term *XuanHuan* was taken to categorize *Journey in Piaomiao* and therefore the most distinctive feature of this webnovel became its definition as a XuanHuan webnovel, which related to the cultivation system for super-powered individuals in the fictional world.

In traditional fantasy novels, the individual's super-power was often "unquantifiable". We know one character can become more powerful by practising, but we don't know how much stronger he can become after a certain amount of practice. In contrast, a quantifiable super-power was very common in video games, where numbered levels and stats were used to indicate how strong a character was or had become. *Journey in Piaomiao* inherited this levelling system into the designed fantasy world, as well as a series of corresponding settings to make the world believable.

This system was widely adopted by future and clearly aligned webnovels: some copied the entire world settings and only changed the names, but many others had the original settings more or less altered to fit their own stories. These new webnovels were all categorized under *XuanHuan*, all with a levelling system as well as corresponding settings such as skills, items and events. But they were still novel – as in unique in some way - and interesting to the readers because they borrowed a concept meme from *Piaomiao*, but had the sub-memes of that concept meme changed. Their adoption provided new instances to the “cultivation system” meme and thus made the entire Xuanhuan meme evolved.

Today, we can find XuanHuan worlds with all kinds of super-natural power sources: the “Qi”, the genetic pattern, the gift/blessing of a God, or even the activity of cooking new dishes. In addition, the world setting in more recent XuanHuan webnovels has become more and more distinctive from the original *Piaomiao* world. The collective contributions of each XuanHuan webnovels has greatly evolved the XuanHuan meme.

*Journey in Piaomiao* created a pattern to create a XuanHuan world, which facilitated other writers to write new stories. For example, these new writers could come up with a strange source of power and utilize this pattern to easily develop an entire fantasy world around that power source, and their new stories will in return expand our understanding about XuanHuan stories, which may provide more facilitation to future webnovel writers. A positive cycle forms between a meme and the creative activity adopting this meme.

**ChuanYue (穿越) motif in Chinese webnovel.** *ChuanYue* would be the most representational motif in Chinese webnovel. In Chinese, the literal meaning of *ChuanYue* is “going through”. But in webnovels, this word indicates “going through the boundary of time and space”. A common storyline of ChuanYue novel always follow a pattern that: someone accidentally travels to a different time and space and then experiences a brand new life.

Such a motif can be traced back to the concept of time-travel in traditional Sci-Fi works, where time travelling was often discussed as a serious scientific affair. Then in the 1997 novel *Xun Qin Ji* (《寻秦记》), the main emphasis of this time-travel story shifted from “time-travel” to the “novel experiences in the new time and space”. *Xun Qin Ji* was a popular novel in China. As a result, this new paradigm of time-travel story was familiar to many webnovel writers, and thus being adopted in webnovel stories.

The recognized earliest ChuanYue webnovel was *Re-arising of China* in 2002. This webnovel tells a story about how two youths from the 21<sup>st</sup> century changed the original tragic history of early modern China by applying their time-transcending knowledge after being accidentally transported back to the late Qing Dynasty in China.

The story is neither about time-travel, nor about what early modern China could do to avoid its tragedy. It is actually about satisfying both the readers and the writer himself by feasting them with an exciting and interesting story. This kind of “overwhelming the world (even though by cheating)” experience in this story actually made everybody feel “high (爽)”. The memetic hierarchy of ChuanYue motif can be summarized as:

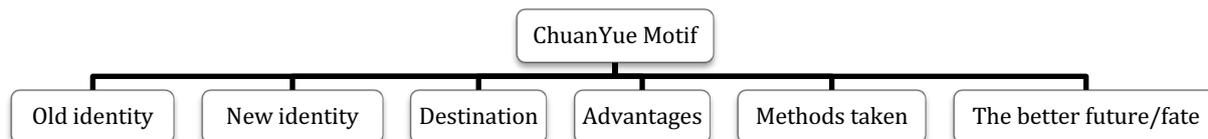


Figure 5. Memetic hierarchy of ChuanYue motif

Those writers who followed ChuanYue webnovels, all adopted this memetic hierarchy, but more or less changed sub-memes for creating novel ChuanYue stories: The main hero(s)

might travel to another world, acquire different advantages, or experience various events and conquests.

One hint I discerned from the decomposition of the ChuanYue meme is that sub-memes might be linked with each other. For example, if the “destination time and space” is changed, the “new identity” of the main hero will be changed accordingly along with the related “better future” that is created from this transforming past. Similarly, the “old identity” of the main hero is often linked with the “advantages” he has acquired in the new world.

ChuanYue meme also provides a clear example of how creative activities evolve a meme. Here is a list of ChuanYue webnovels with their memetic contributions:

- *Journey in Piaomiao* (《飘渺之旅》) in 2002 introduced “travel to a fantasy world” over the old “travel to a historical period”;
- *TieXue DiGuo* (《铁血帝国》) in 2003 introduced “group travel” over the old “individual travel”, meaning an entire group of people instead of a few individuals travelled to the new world;
- *Scarlet Heart* (《步步惊心》) in 2003 introduced “female traveller” as well as the sub-genre “QingChuan (清穿)”. QingChuan means young girls “ChuanYue” to the Qing Dynasty and experience love or engage in harem fights. This sub-genre is often the favourite webnovel genre of female readers.
- *New Song* (《新宋》) in 2004 introduced “moderate reform” over the old “military approaches” essentially meaning changing history by applying a top-down reform;
- *Legend of Resurrection* (《重生传说》) in 2004 introduced “resurrection” over the old “bodily travel”, meaning the main hero is spiritually resurrected into a younger self but all the memory and expertise of the original soul are retained. This change also brings the transformation of the *purpose* from “altering the history” to “altering personal fate”;
- *Overlord of Industry* (《工业霸主》) in 2011 introduced “developing heavy industry” as a new method to make China a greater nation. This webnovel also opened the possibility for webnovel writers to incorporate very professional information - often related to the writer’s specialty or interest - into their writing to increase novelty. In this particular story, the professional information is the history and technologies about manufacturing and heavy industry.

The entire list for this ChuanYue meme is more than ten times longer than what I have reported here. We can tell from these webnovels that ChuanYue meme has been greatly evolved but bit by bit through new contributions from these story-compositions all originally following from one single pattern.

Another interesting fact I gained from this analysis of ChuanYue webnovels is the future generalization of the ChuanYue meme. A huge percentage of webnovels today start with a typical ChuanYue narrative: “When (someone) wakes up, he/she realizes that it is a new world and he/she has become (someone else).” But the rest of the story bears no relationship to the original ChuanYue motif. These webnovels just use “ChuanYue” as an easy-to-explain excuse for why the main character is so overwhelmed in that world. ChuanYue meme is not completely dead in these webnovels; nonetheless, it is also not actively shaping the novel at the same time. This new “stable” status of a meme is relatively new to me and has updated my understanding about this meme and the migration/deployment of memes for different webnovel objectives and directions.

### Findings

Even though I didn't include all the details in my analysis in this paper of the Chinese webnovel industry, the three memes explored above have exemplified the feasibility of applying a memetic perspective into the studies of genuine creative activities. The study also exemplifies that collaborative creativity is a natural mechanism for all types of creativity which are situated at the opposite end to individual creativity. For any specific creative activity, it is just a matter of degree about which end is more weighted during a certain period of time. For instance, the creative activity of story-composition is more closely aligned to the individual end of creativity in what can be thought of as traditional novel writing and even in the early stage of webnovel writing. However, it shifts to the collaborative end later in the process with the establishment of the webnovel industry. Today's webnovel writing relies heavily on what can be identified as the sociological collaboration for not only the shared activities/creativity among the writers, but also for the organizers/businesses and even the consumers/readers.

The creativity mechanism from the collaborative end follows different principles than the mechanism from the individual end.

The first distinction is the functionality of the creative product. For the creativity that relies more on collaborative creativity, the creative product serves more for the diffusion of memes than for its originated utility. Many webnovels are poor in terms of writing and storytelling, but they might attract readers with their particular novel world settings. This attraction may not last long and most readers might quit reading after finishing the free public chapters. But those settings will get diffused and very likely adopted by other webnovel writers or even purchased by a game developer who wants to make a game with a similar world. Some people may argue that this movement represents another utility of the particular webnovel; however it is more accurate to say that everyone knows there is a possibility that a webnovel may be chosen for adaptation, but no writer can guarantee that his/her webnovel will be picked and for what exact quality or particular reason it was chosen.

Of course, the functionality of the product is a positive factor for the diffusion of memes, but it is not the only factor, nor even the most dominant. The memetic perspective suggests us to hold a more positive attitude to those not-so-great-but-popular products, because they are actually the middleware to the ultimate creative products.

The second distinction is the process of creative production. The overall creative production from the collaborative side appears like a "trial and error" process. The majority of webnovel writers behind a popular work rarely if ever demonstrate literary or storytelling talents beforehand, most may not even be able to continue their creative performance afterwards. I would rather believe that many creative webnovel stories are only the result from trials of new combinations or new ingredients within the scope of an already-successful hierarchy of a webnovel story, because there is a multitude of failures buried in these webnovel sites.

The success of the Chinese webnovel industry depends on the exploitation of this "trial and error" process: First, the company establishes infrastructures for webnovel writing such as a webnovel site and an editorial department; then, the company lures people into participating in webnovel writing with a prospect such as fortune and fame; lastly, the company waits until good webnovels are popped out of those "errors" and starts to invest heavily to maximise the commercial value of these incidental good results.

In other words, for collaborative creativity, it's more important to gather massive and highly diversified creative participants, equip them with the capacity to participate in the creative activity, and provide them an environment where the access and transmission of information is fast and convenient.

Diversity among participants is extremely important for this "trial and error" process. Diversity brings new memes naturally and, connected to this natural development of

permutations in this environment. It is much easier for people to utilize their own specialty or distinction than asking them to work through or develop unfamiliar information.

However, not every creative activity can be facilitated in the same way as Chinese webnovel. It is because some traits are playing important roles in deciding whether a creative activity is suited for collaborative production or not. Because webnovel writing doesn't require much professional knowledge and skills or expensive tools and equipment, anyone with normal education and access to the Internet can participate in webnovel writing with little difficulty. Then with these infrastructural and organizational approaches eliminating the difficulties in publishing and sustainability, the whole process of creative participatory in webnovel writing has eventually become convenient for ordinary people. Such preconditions and patterns have not been achieved for many other creative activities and their industries yet.

Moreover, from the memetic perspective, some traditional concepts about creativity are challenged. For example, there seems no fundamental difference between the revolutionary creativity and the minor creativity. A revolutionary creativity might involve much more memetic differences than a minor creativity, but such differences can be eliminated with the aggregation of multiple, diversified minor creativity, each changes one sub-meme at a time. Further from privileging this approach to creativity, it is very conceivable that we could substitute the role of a highly creative individual as the centre of the creative process by building a collaborative group consisting of much more ordinary people.

Last but not least, our attitude to copyright might also need to be updated in response to the memetic perspective. The memetic perspective helps us to identify the genuine creative outcome as well as the source of inspiration on the one hand, but on the other hand, it advocates the appropriation of memes from existing works, regardless whether those existing works are copyrighted or not. Today's copyright laws were all enacted without the guidance of this memetic perspective: now might be the right time to adjust these laws for a better facilitation to creativity.

### Discussion

I need to emphasize here that the memetic perspective is just a new feasible way of viewing creativity. The *Memetic Evolutionary Model* I propose here is mainly from theoretical inferencing and conceptual analogy of existing theories related to creativity and innovation. The findings are partly derived from the model and partly from studying the Chinese webnovel industry. The validity of the model and the findings might be debatable because my understanding about creativity could be limited and the chosen case might be unrepresentative across the vast domain of creative activity.

However, I want to iterate that my goal in this paper is to promote the memetic perspective to academia and scholarship and encourage more creativity studies from this perspective. Creativity has many aspects, and there are so many different fields related to creativity. I alone don't have the time and the capacity to explore them all. As the very memetic perspective indicates, the more scholars involved in the memetic studies of creativity, the more diversified studies conducted related to this memetic perspective, ultimately the more revolutionary achievement will be achieved.

Most significantly, I hope that scholars can bring this memetic perspective into studies related to education as well as the studies concerning copyright. As I have said above in this paper, the copyright laws and cultivation schemes predate the emergence of the concept of *collaborative creativity*, never mind this memetic perspective that I am advancing here. It is an urgent request for these two fields to update so that they can cultivate more qualified creative participants as well as do a better job in encouraging creative participation and protecting intellectual property.

### Conclusion

The memetic perspective provides a fresh view for studies related to creativity which can lead to a more comprehensive understanding of creativity and therefore facilitate the expansion of overall creativity in society. This paper represents the starting point for memetic studies about creativity, and there are many more cases to analyse. Moreover, as this brief case study reveals my study of the Chinese webnovel industry from a memetic perspective related to creativity in and of itself is a rich area for even further academic exploration.

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