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Discovering the imaginative capability of technology writers: Its indicators, roots, and cultivation

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ABSTRACT

Extant research regarding writer imagination is scant, which suggests that additional studies would be beneficial. The aim of this study was to explore the indicators, roots, and cultivation of the imaginative capabilities of technology writers. For the purpose of this study, we analyzed 6 renowned case writers in Taiwan through in-depth interviews. The results indicated 10 indicators of imaginative capability, which concurred with the results of previous research. We also identified 8 roots of imaginative capability, in which personality traits emerged as the most decisive root for technology writers, whereas the other roots can be purposively nurtured or can be developed as the writer becomes socially mature. In addition, we identified 9 methods for cultivating this capability, which can be categorized into information internalization and self-disciplined engagement. The results of this study provide an understanding of how technology writers' imaginative capability can be assessed, and contribute insights into the complexities that various roots endow upon diverse imaginative capabilities through the use of distinct methods of cultivation.

1. Introduction

In this networked digital age, people are struggling with integrating a variety of technological inventions on a daily basis. Nearly all aspects of human lives, such as learning, working, entertaining, and communicating, are influenced by technology. To remain informed of the current trends, a continually growing population reads the news on blogs, Web sites, and Facebook through the Internet (Segev, 2010; Van der Wurff & Lauf, 2005). Pavlik (2000) indicated that our modern history is replete with examples of how recent technologies have shaped the content of contemporary news, which have taken the form of phenomenon reports or development predictions. Van der Haak, Parks, and Castells (2012) suggested that new methods for producing information are being developed continually: audience feedback is being increasingly integrated; an increasing number of people are able to express themselves to a wide audience; an increasing number of diverse perspectives on the same news stories are being presented; an increasing number of stories are available, archived, and searchable for increased periods; and an increasing number of people are becoming increasingly and actively engaged with the changes in the world.

The increasing demands for media technology through which news contents can be presented provide increased benefits for technology writers. They have played a crucial role in enabling people to understand these technologies and how they

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Table 1
Indicators of imaginative capabilities (Liang, Chang, et al., 2013; Liang, Hsu, & Chang, 2013; Liang, Hsu, Chang, et al., 2013).

Indicator	Definition
Novelty	The ability to generate uncommon ideas
Productivity	The ability to generate ideas effectively
Exploration	The ability to question the unknown
Concentration	The ability to formulate thoughts through focus
Sensibility	The ability to evoke feelings during the creative process
Intuition	The ability to generate immediate associations with a goal
Effectiveness	The ability to generate relevant and profound thoughts about the target
Dialectics	The ability to seek improvement by logically analyzing thoughts
Crystallization	The ability to express abstract ideas by using concrete examples
Transformation	The ability to perform tasks by transforming information acquired across multiple fields of knowledge

can be applied in everyday life (Bauer, Howard, Romo Ramos, Massarani, & Amorim, 2013). The technological affordances and contexts have changed the writing modes and forms of these writers. Pennington (2013) indicated that an increasingly fluid writing process has led to new types of language and new conventions for written text, increasingly malleable writing both in the sense that conventions are evolving and that writers are less tied to concrete printed text than in the past, and a high degree of hybridity with other forms of media and text. Through their work, these writers represent and interpret their writings simultaneously (Arnold, 2012) and become increasingly likely to recognize texts not as information but as the words of real people (Perrault, 2012). These "readerly writers" have been accepted by mainstream media as a complementary component of editorially controlled reportage.

Despite the increase in the power of these technology writers, how their imagination is used to reshape the world by influencing readers remains a mystery. Kaufman (2002) used a model of creativity (constructed by Sternberg & Lubart, 1996) to examine creative writers based on motivation, intelligence, personality, thinking style, knowledge, and environment. He concluded that these writers focus more on internal forces (e.g., intrinsic motivation, instability, impulsivity) than on external forces (e.g., environment). Although Kaufman's work did not elucidate the aforementioned mystery—imaginative capability and its functions—it indicates the possibilities of understanding the roots and cultivation of writers' imaginative capabilities. Understanding their imaginative capabilities is crucial because these writers require them to communicate their visions and thereby foster change Lackerbauer (2011) suggested that the more writers imagine and envision, the more they will be able to innovate and channel their imagination for positive change.

The studies on creative writing have increased over the years (e.g., Light, 2002; Vass, 2007), but extant research regarding writer imagination is scant. This limitation suggests that additional studies on the subject may be beneficial. Based on this context, we propose the following questions: Are there a set of indicators that can be used to learn and assess the imaginative capability of technology writers? Where does the imagination come from? How can it be nurtured? The present study aimed to explore the indicators, roots, and cultivation of the imaginative capabilities of technology writers. For the purpose of this study, we studied six renowned case writers in Taiwan by conducting in-depth interviews.

2. Imaginative capabilities

Imagination is a highly valuable cognitive capacity (Heath, 2008), and can be defined as "a creative faculty of the mind" or "a power of the mind" (Perdue, 2003). Passmore (1985) indicated that imagination enables people to go beyond actual experience and construct alternative possibilities. This "possibility thinking" can thus be perceived as the basis for cultivating creative thinking and the driving force of innovation (Craft, Chappell, & Twining, 2008; Finke, 1996). Imagination is particularly suited to be the vehicle of active creativity, and it can enable people to go beyond actual experience (Gaut, 2005; Heath, 2008). Moreover, Morosini (2010) suggested that imagination can be regarded as the conduit through which the unconscious expresses itself in the form of creative mental imagery that can drive deliberate actions (p. 35).

Imaginative capabilities can be categorized into 10 indicators: novelty, productivity, exploration, concentration, sensibility, intuition, effectiveness, dialectics, crystallization, and transformation (Liang, Hsu, Chang, & Lin, 2013) (Table 1). *Novelty* is derived from previous studies (Beaney, 2005; Vygotsky, 1930/2004) and suggests that imaginative individuals are highly capable of creating new possibilities, offering new perspectives on familiar topics, and achieving productivity by using combinations of abstract concepts. *Productivity* is an indicator that supports the findings of previous studies (Folkmann, 2010; Ribot, 1906), which have suggested that imagination corresponds to four categories of productivity: quantity of images; quantity and intensity of images; quantity, intensity and duration of images; and complete systematization. *Exploration* is also an indicator that supports the findings reported in earlier studies (Colello, 2007; Thomas, 1999) suggesting that imagination can qualitatively change the outlook of people from a vague appreciation to a detailed understanding of reality.

The indicator of *concentration* is compatible with the findings presented in previous studies (Csikszentmihalyi, 1996; Folkmann, 2010) suggesting that imagination enables a focused process of flow, in which people are immersed in the tasks they are conducting. *Sensibility* is present in the findings of earlier studies (Ricoeur, 1978; Scheffler, 1986) suggesting that the majority of imagination is emotive in content, which is often based on various experiences of mental and emotion struggles. *Intuition* can be associated with the findings of previous studies (Reichling, 1990; Townsend, 2003) suggesting that knowledge is gained directly as an insight into the entire concept through intuition. If people use intuitive representations,