

CHAPTER EIGHTEEN

CREATIVITY AND THE FUTURE: TECHNOLOGY, GLOBALIZATION, AND GOOD

JAMES C. KAUFMAN & MEI ZHENG

Creativity has often been seen as a pathway to the future, a way that we can finally, perhaps reach the 1950's science fiction utopian view of flying cars and interplanetary exploration. Yet over the last several years, it has become more and more clear that creativity may be the pathway toward having any future at all.

If past decades have seen us debate different nuances of such issues as whether creativity is domain specific or domain general (e.g., Baer, 2015), the nature of creativity's relationship with mental health (e.g., Acar et al., 2020; Taylor, 2017), and the way that intrinsic and extrinsic motivation may shape creative behavior (e.g., Hennessey, 2019), the road ahead will need to see us focus on how creativity can best solve the many crises that have been continuing to pop up throughout the world. We have already seen in the past, of course, how creative actions, solutions, and collaborations can help address emergencies, with the 1970's oil crisis being a classic example (Cropley, 2015).

Today, it can seem as though there are more potential apocalyptic scenarios cropping up than ever before, between international armed conflicts escalating, climate change warnings remaining largely unheeded, new diseases spreading, despotic governments taking power, and so much more. As you have just read, creativity has been proposed as the new literacy (Ophoven, this volume) and as the best way to solve intensely different problems (Miller et al., this volume). Such a power can have tremendous potential if it can be harnessed for good.

Indeed, creativity has been proposed as a force that can help save the world, if we can nurture the type of transformational and positive creativity that helps creators see beyond themselves (Kaufman, 2023; Sternberg, 2020, 2021a, 2021b, 2021c, 2023; Sternberg & Chowkase, 2021). It for this reason that we are so heartened to read the chapters representing ongoing scholarship that is broadly working for such positive ends.

Certainly, one of the most exciting directions for creativity research – and one that is amply discussed in this volume – is how we can best utilize the ongoing technological revolution. The modern computer, ENIAC, only predated the modern advent of creativity scholarship (Guilford, 1950) by five years. Modern divergent thinking tests (i.e., Torrance, 1966) came of age as early versions of the internet and electronic mail debuted. Personal computers grew in popularity as modern creativity theory blossomed (e.g., Amabile, 1983; Sternberg, 1985). And as creativity scholarship has exploded over the

last decade or so, so has technology, with the internet, social media, video conferencing, and artificial intelligence changing our world exponentially.

Creativity assessment is one area that has been rapidly evolving. In recent years, machine learning has been utilized to automatically score both verbal (Acar et al., 2021) and figural (Cropley & Marrone, 2022) divergent thinking tasks, as well as scoring creative essays to match with expert raters (Johnson et al., 2022). Cropley (this volume) highlights such computational creativity advances, highlighting the wide array of benefits and possibilities while also acknowledging the current limitations. Another way that creativity has been utilizing technology, as Wilson (this volume) notes, is the use of digital tools, virtual learning environments, and social media channels to carry the day in the face of the challenges educators faced during the pandemic lockdown. Technology can also enable us to connect with each other through our creative efforts. Messina et al. (this volume) discuss the Internet of Musical Things (IoMusT) and the Internet of Musical Stuff (IoMusS), which enable music to be shared all over the world. Castañeda (this volume) also highlights how technology has allowed creators to distribute their music everywhere via Spotify.

In part because of the advances in technology, it is possible for countries and cultures to interact, share, and learn from each other. The necessity of taking a global approach to creativity, which was advocated early in our field's history by Stein (1953), has never been more certain. It is fitting that the first chapter in this volume, by Byock et al. (this volume) discusses the Global Creativity Initiative (GCI), an organization dedicated to highlighting and advocating for creativity in all communities. Some chapters talk about how multicultural interactions can boost creativity. Stephens (this volume) offers a broad overview of the research in this area, whereas Celume (this volume) reports on a study on the creative benefits for students who collaborate online with other students from different cultures.

Other chapters focus on how creativity can enhance ways that teachers, scholars, and leaders can help people across cultures. For example, Herath et al. (this volume) emphasize the importance of creativity in helping teaching develop more inclusive pedagogies that will help a wide diversity of students across many different cultures. Koff (this volume) takes a global perspective on dance and dance education, and Neethly et al. (this volume) notes that understanding cultures and diversity is a key part of creative leadership.

Whether using the lens of technology, the world, or something else altogether, many chapters, as noted earlier, have a specific emphasis on the positive power of creativity (e.g., Kaufman, 2023). Some focus on mental health. Post-traumatic growth is a powerful way that people can heal in the aftermath of devastating events, with creativity being one way that people can reach such growth (Forgeard, 2013, 2019). Fogarty and Brewster (this volume) explore the way that creativity instruction, tools, and activities can help enhance such post-traumatic growth outcomes, offering scenarios and highlighting cross-cultural applications. Bredin (this volume) writes about the French Creativity Institute and how it will aim to use creativity to help enrich people's lives. Wilson (this volume) notes the way that creative educational

culture and practice helped people during and immediately following the pandemic lockdown.

Other chapters focus on how creativity may serve as a way to enhance tolerance and fairness (e.g., Luria & Kaufman, 2017). Laskar and Sharma (this volume) address how creativity can help both social and objective well-being in India, ideally serving as a way to address income disparity and increase equity. Meloche and Clothey (this volume) use Uyghur as an example of how minority culture groups view creativity, with an eye toward how creativity can be studied and taught in a cross-cultural context.

We have offered but a brief overview of the chapters continued within. One recurring theme that we have not specifically highlighted is that of education. Many chapters emphasize how creativity can infuse education, and how good teachers can boost creativity. Scholarship must have some type of real world application to make an impact. The teaching strategies, curricular examples, pedagogical discussions, and program overviews presented here are a roadmap to how we can help the next generation tackle the problems that face them. The institutes, initiatives, assessment advances, and emerging technologies will ideally offer them the tools to go with the principles and abilities to succeed.

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