Chapter 1
A Historical Review of Creative Technologies

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ABSTRACT

This chapter provides a historical overview of the emergence of the creative technologies, tracing the usage of associated terms back to the close of the Second World War. An overall analysis of the reviewed literature suggests that the growth of the field was relatively slow prior to the year 2000; however since the turn of the millennium there has been an explosion of interest. The origin of creative technology is firmly places in the engineering disciplines with a focus on soundness of technology; however over time the field has expanded to include more artistic foci. This change in focus is discussed in light of how the creative technologies are viewed today and future directions of the field are discussed.

INTRODUCTION

In a modern context, creative technologies is normally considered to be a broad interdisciplinary and transdisciplinary domain that typically combines knowledge from a variety of disciplines that include art, computer science, design, engineering and the humanities. In education, degrees of this ilk are typically presented as a modern degree intended to address needs for cross-disciplinary interaction and to develop lateral thinking skills across other more rigidly defined academic areas recognized as a valuable component in expanding technological horizons.

The lack of rigid definition of the field is a challenge in terms of understanding what is (and what is not) in scope of creative technologies. This chapter addresses this by undertaking a literature review that traces back the history of the field to the early uses of "creative technology" or "creative technologies". The goal of this chapter is therefore to provide a very high level overview of how this field has emerged and transformed over time. The chapter adopts a chronological reporting style in order to mirror how the field has evolved with common themes and relationships identified in the discussion.

BACKGROUND

It seems that the use of the phrase "creative technologies" is a recent trend, particularly in academia where the last few years have seen an explosion in number of undergraduate programs that utilize the phrase "creative technologies" in the program title or otherwise articulated in the curriculum. The trend is not limited to academia, with the emergence of the job title "creative technologist" becoming common around the globe. Whilst a casual glance may suggest that creative technologies is a recent trend, the field can trace its origins to the 1940s and potential drivers emerging from the Second World War that were focused on rapid technological development and economic stability.

Figure 1 shows the outcomes of a search conducted using Google Scholar using the search term ["Creative Technologies" OR "Creative Technology"], where patents and citations were excluded from the search results. The number of articles that contained either of the search terms was limited to year of publication to give an indication of how the use of the term in academic literature has changed over time. In this approach, typically 1-4 articles occurred per year between 1940 and 1979 and so for convenience these are reported in five year blocks.

In terms of the emergence and definition of the field, these early publications provide an interesting insight in terms of heritage and lineage. This early, pioneering work will be discussed later in this article.

Continuing with the analysis, the period from 1980 to 1989 shows an increase in the number of articles published, though throughout this period it remains roughly constant. However the late 1990s see the start of a year-on-year growth. Figure 2 shows this growth in publications.

Such simple analysis is by no means a perfect tool for evaluating the growth and impact of creative technologies. It is recognized that the Google Scholar database varies over time, so the results may not be repeatable. Similarly, due to limitations of scale, not every article has been fully documented to provide insight to the history and relevance of creative technologies and further studies should be conducted to provide more detail of the key milestones. Instead, the prominent trends have been extracted from the literature to provide an overview of the emergence and evolution of the field for which the publication data suggests that there is a growing interest.

Figure 1. Publications by year (1945 – 1979)
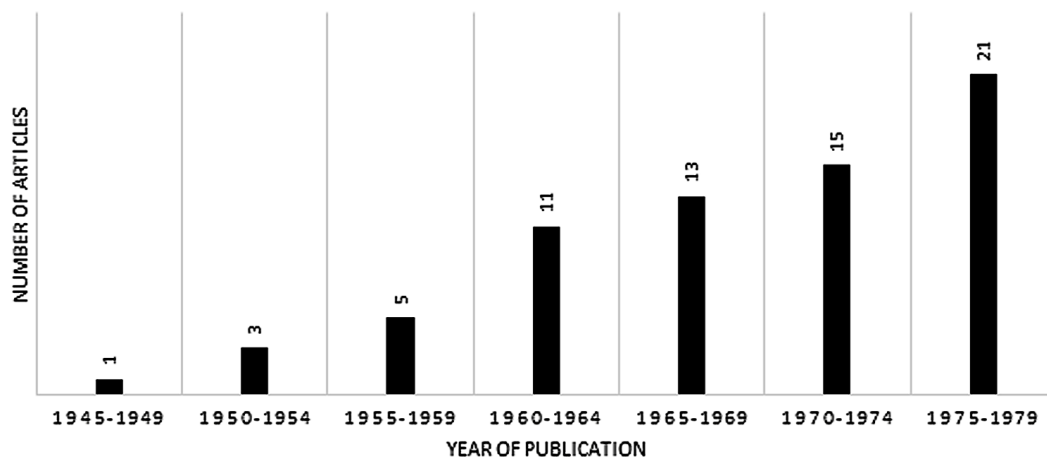
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