

# Abstract

Serendipity is an enigmatic and engaging experience that arises out of chance encounters. While many accidental but fortunate and desirable discoveries in the history of science have been linked to serendipity, the experience can also capture people's imagination when encountered out of the ordinariness of their everyday life. Such encounters are often imbued with 'magic' and wonder, bearing the capacity to not only delight and thrill, but under certain circumstances, it can also be personally transformative.

Recently, a particular type of this serendipity has been reported to arise during people's use of technologies. It is encountered as a user-experience (UX)—particularly when people use particular technologies to interact with personal digital content. Yet an extensive literature review reveals that to date, no work has been done to understand this personally engaging and potentially rich experience as a type of UX. In response, this thesis engages with the efforts to establish an understanding of this serendipity as a UX.

This understanding is forged through a series of empirical studies that focus upon serendipitous encounters arising from people's random-led listening of their own digital music, i.e., when they listen in the shuffle mode. Feeding these studies are data that have been collected via various fieldwork using tools and techniques that are informed by ethnography.

The first study identified the elements that are at play—elements that have a role in influencing the birth of this experience during digital music listening. Following this, three further studies set about elucidating the properties of the individual elements and also the inter-relationships of these elements. Through the analysis of the data, these studies contribute cumulatively towards forging an understanding of how these elements influence the birth of serendipity. Besides providing a characterization of this brand of serendipity, these studies also reveal how under particular conditions, these elements in fact provide people with opportunities to encounter this serendipity. A fifth (and final) study instantiates this understanding—derived from studying interactions with digital music—into another domain; demonstrating that this understanding can be used to support for serendipitous encounters when people interact with personal digital photographs.

Through these studies, this thesis provides the first empirically grounded understanding of serendipity as a UX. In doing so, this broadens the concept of UX. By offering insights into the enriched character of this experience, it adds to the range and possibilities of experiences that could be possibly supported when designing with UX in mind. This understanding also introduces serendipity into the fold of the UX agenda; serving to add richer and more engaging experiences to the current conceptualization of UX, extending it beyond its current (limited) focus on experiences of fun and enjoyment.

Finally, by surfacing means whereby people may be availed opportunities to encounter this serendipity during interactions with technology, it enriches the concept of UX; seeding inspiration and furthering efforts of experience-centered designs.