

# Creatively Designing with/for Cultural Nostalgia

## Designers' Reflections on Technological Change and the Loss of Physicality

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**Abstract:** This paper examines accelerated technological change as one of the forces evoking cultural nostalgia and how designers are aware of the phenomenon and how they are creatively dealing with it. Firstly, it challenges the conventional understanding of nostalgia in the design field and introduces a contemporary concept of nostalgia and its special relationship with design based on a multidisciplinary literature review. Secondly, it specifically examines the loss of physicality in many aspects of people's lives, caused by the rapid development of digital technology and its impact on the growing appetite for relevant cultural nostalgia, which is often shared cross-culturally. Then, by focusing on an example of this effect in contemporary musical lifestyles and analyzing two recent design cases from the USA, we investigate how the designers have assimilated the value of (cultural) nostalgia, by creatively reviving lost but cherished early experiences in the present and encouraging people to critically reflect on the digital lifestyle. In conclusion the paper discusses nostalgia as a general design issue and how designers may creatively exert positive influence on societal 'nostalgia waves' in a broader sense.

**Key words:** *Nostalgia, Accelerated Technological Change, Physicality, Music, Digital, Analog,*

## 1. Introduction: Nostalgia and Design

### 1.1 Re-understanding Nostalgia

Initially coined by Hofer [8] to name a disease, the concept of nostalgia was once loaded with negative connotations over a lengthy period in history. However, because it applies not just to individuals but also collectively to wider society, researchers from different disciplines have had several attempts to re-examine and re-conceptualize nostalgia over the past three centuries. Although nostalgia has some minor negative connotations, few would deny that continuously evolving new knowledge and theories of nostalgia over recent decades have become a dominant trend to view nostalgia as an enjoyable experience or a mixed (bittersweet) emotion with predominantly positive attributes [4,7,22,23,28].

Contrary to its original conception, most contemporary psychologists and sociologists consider nostalgia a normal and common emotion [2,28]. For example, in one study in the UK, 79% of the participants reported that they experienced nostalgia once a week or more and only 4% of them did not have nostalgic experience frequently [28]. Perhaps surprisingly, with the support of compelling empirical data, being nostalgic has been claimed to be beneficial to both psychological and physiological wellbeing. According to a series of recent cross-cultural studies [13,14,22,23,24,25,26,28,29], nostalgia has been discovered to be an emotion that serves four major psychological functions: 1) generating positive affect, 2) maintaining and enhancing positive self-esteem, 3) serving as a

repository of social connectedness and 4) providing a sense of meaning in life. Furthermore, the known connections between nostalgia and wellbeing have gone beyond psychological level. In 2012, a ground breaking study affirms that nostalgia evokes a feeling of warmth, not just psychologically but also physiologically - being nostalgic helped the participants maintain their physiological comfort in a cold environment [32].

Sociologists have also explored the positive aspects of nostalgia at the collective level. For example, in his book *“Yearning for Yesterday: A Sociology of Nostalgia”*, Davis [5] generally argues that nostalgia is a mechanism that helps people retain their identities and cope with discontinuities caused by major life changes. When it comes to societies, Davis claims that the public appetite for nostalgia can be seen as a socially adaptive mechanism that eases socio-cultural discontinuities and imbalances caused by earlier radical societal changes.

With such positive and enjoyable affective attributes, nostalgia often also helps to enhance commercial sales curves, and therefore nostalgia studies in the fields of marketing and consumer behavior have long been very fruitful. One of the most influential and broadly cited definitions of nostalgia is given by Holbrook and Schindler [11: 108] from a perspective of consumer behavior research - “a preference (general liking, positive attitude or favorable effect) towards experiences associated with objects (people, places or things) that were more common (popular, fashionable or widely circulated) when one was younger (in early adulthood, in adolescence, in childhood or even before birth)”. The capacity of brands or products to fulfill the nostalgic preference of consumers, has been considered to have great potential for commercial success [3,16,19,21,27].

## **1.2 Design Research on Nostalgia**

Despite growing slowly, design research on nostalgia has gradually expanded in recent years. For example, from a perspective of experience-driven design, Xue and Woolley [30] examined the underlying process of design-evoked nostalgic experience, together with the influential factors that designers should understand and may creatively manipulate, for designing for nostalgic experience. Huppertz [12] analyses the interrelationship between “nostalgic fever”, Hong Kong’s social uncertainty and anxiety in the 1980s and 1990s and the success of local nostalgic design brands. Nevertheless, it still appears that recognizing nostalgia as a serious contemporary design issue, especially as one that has potential positive impacts, has not been given the legitimacy that it deserves.

Nostalgia has long been a difficult term and has been ignored if not openly rejected by researchers and practitioners in the design field. On the one hand, designers often gain their inspirations from cultural memories and pre-set nostalgia to be an intended user experience. Thus successful nostalgic design cases are not difficult to find. On the other hand, nostalgia inevitably has connections with past memories or experiences, which are seemingly in opposition to being innovative— a characteristic that is generally associated with good design. Critiques of nostalgia often point to its apparent conservative character and claim that looking back prevents designers from being truly innovative. It may sound reasonable, but few have ever questioned how conservative and outdated such critiques themselves might be. Nostalgia (or the need for being nostalgic) is globally prevalent in our times, which perhaps explains why it has recently received so much attention from so many different disciplines. The important roles that nostalgia plays in art, culture, business and human wellbeing have been well explored, and therefore there is no reason for design researchers to continue to ignore the phenomenon. The impacts and positive potentials of nostalgia on design therefore require a reappraisal.

In the previous studies, the authors of this paper have investigated the radical socio-economic change happened in China over past 30 years as a force that contributes to the current “nostalgia wave” and nostalgic design

preferences of the Chinese consumers [31]. This paper further examines accelerated technological change as one of the important forces for cultural nostalgia and explores how designers have been aware of and creatively addressed it. Firstly, the concept of cultural nostalgia and its special relationship with design is reviewed. Secondly, the paper examines the loss of physicality in many aspects of people's lives and the growing appetite for cultural nostalgia, which is often shared cross-culturally. Thirdly, by focusing on such an effect in contemporary musical lifestyles and analyzing two design cases from the USA, the paper investigates how some designers have realized the value of (cultural) nostalgia, creatively recreating lost but cherished early experience within contemporary life and encouraging people to reflect critically on the digital lifestyle. In the end, it discusses how designers may exert positive influence on societal "nostalgia waves" in a broader sense.

## **2. Cultural Nostalgia**

### **2.1 Four Types of Nostalgia**

Nostalgia is a complex emotion which may be based on different kinds of memories or past experiences: personal or collective, direct or indirect. Holak and Havlena [6] propose to classify nostalgia into four categories (i.e. personal, interpersonal, cultural and virtual nostalgia). Thus "*Personal Nostalgia*" is based on the memory that an individual has personally experienced and differs significantly between one person and another. "*Interpersonal Nostalgia*" refers to the nostalgia elicited by recalling memories gleaned from communication with others, especially loved ones (e.g. family members, close friends or lovers). "*Cultural Nostalgia*" involves collective memory that was directly experienced and shared by members of particular groups. "*Virtual Nostalgia*" can be seen as "virtual reality, with the emotion based upon shared indirect experience" [10: 173], such as the contents of an old and popular book or film.

Although nostalgia can be categorized into these four categories for mapping its conceptual territory, in reality they are heavily intertwined. For example, cultural nostalgia is based on the direct collective memories of a group, but it does not mean that each person within this group would have exactly the same memory retrieval and affective experience when exposed to cultural nostalgia. On the other hand, in many cases, personal nostalgia may also be viewed as part of cultural nostalgia from a social perspective. Thus, it is more appropriate to consider this categorization as a means of clarifying the conceptual territory of nostalgia and helping researchers to define different foci for different research contexts.

### **2.2 Cultural Nostalgia and Design**

Out of the four types of nostalgia, *Cultural Nostalgia* is a particularly interesting category that designers should probably pay more attention to. Firstly, as a collective experience, cultural nostalgia is much more predictable than personal and interpersonal nostalgia. For instance, we may easily surmise that listening to *The Beatles'* top hits is very likely to make a 50-something western audience feel nostalgic. Secondly, as it is also based on direct experience, such a nostalgic experience tends to be more vivid and richer than those based on indirect experience [9]. Thirdly, cultural nostalgia's great "shareability" may be a key source of the positive affect that nostalgia brings. Although nostalgia is predominantly positive, it can be mixed with minor negative emotions (e.g. feelings of loss, melancholia) and such negative aspects could be amplified under certain circumstances, which is something that designers perhaps need to avoid. Compared with being nostalgic individually, collective nostalgic experience

seems to be more enjoyable, as the nostalgic person is able to share it with others who also have similar responses to the same stimuli.

### **3. Accelerated Technological Change, the Loss of Physicality and Nostalgic Need**

It is common to observe the special collective needs for cultural nostalgia (or “nostalgia waves”) following radical social change or revolution. Both political and economic upheavals can be important forces for them (e.g. in Eastern Europe and China), but their scope of influence is usually regionally restricted. However, in many cases, cultural nostalgia is not always confined within one particular country or culture, but shared cross-culturally. Accelerated technological change, which both the developed and developing world are facing together, could be considered an important force for such cross-culturally shared nostalgia and designers should be encouraged to explore the cultural and emotional potentials and values of it.

Many technologies have great potential to influence human behaviors, lifestyles and even reshape entire societies and it is often claimed that the rate of technological development has accelerated consistently, whereas the time needed for new technologies to displace previous technologies in everyday lives has steadily decreased [15]. It seems that the propensity for being nostalgic has been growing along with accelerated technological change, if thinking of the parallel radical change in the understanding of nostalgia over the past 300 years from abnormal to normal and from negative to positive. As previously stated, being nostalgic often facilitates individuals and societies (or generations) to retain identities and life continuities and regulates the imbalances caused by change. The increasing rate of technological change has triggered remarkable effects in this sense. It has ensured that the current generation has to undergo faster and more profound changes in life, which used to be the course of several generations. This has in turn forced people to adjust their behaviors and lifestyles much more frequently than their ancestors. When looking back 30 years, most people may find that many products, technologies, the relevant behaviors and cultural aspects that used to be popular and associated with their early experiences, have completely disappeared in their current lives because newer technologies have displaced them. It is reasonable to surmise that such rapid technological revolution can result in similar social effects or discontinuities as political and economic revolutions can do. Furthermore, because of globalization, when a new technology is invented and applied, it does not gradually transfer from one country to another anymore, but simultaneously penetrates most modern societies around the world. Thus, in this case, cultural nostalgia driven by accelerated technological change can often find a passionate audience across the world.

#### **3.1 The Loss (or Reduction) of Physicality**

The current generation has experienced many extraordinarily profound technology-driven life changes and one of them is the reduction, or even loss of physicality, brought by the development and broad implementation of digital technology. This has suffused every aspect of life and the digital way of doing things has become dominant in many cases. For example, hand written letters have been largely replaced by emails or mobile phone texts; camera films are no longer needed for taking photos; millions of digital books can be read on mobile electronic devices. Such a transition has arguably brought great convenience, saved huge amounts of time and provided enormous storage space for everyone. Following this trend, some science fiction films have pictured the future living environment as an empty room with four touch screen walls which can mimic any desired environment and allow the ‘inhabitants’ to naturally interact with the virtual objects on the screens. Nevertheless, for millions of

years, human beings have evolved in a real physical three-dimensional world and experienced this world and interacted with objects through all sensory modalities. Over time, people associate memories and meanings and became emotionally attached to some of their physical possessions. Therefore, when celebrating the conveniences that digitization has brought, the rich sensory experience of interacting with physical artifacts and more importantly the special affective relationship that people once enjoyed with their physical artifacts, have often been sacrificed.

The loss of physicality is particularly obvious in today's digital musical life. With the invention and development of audio recording, the storage media and playing devices from 19<sup>th</sup> century, 78 rpm discs, LPs with turntables, cassette tapes with boom-boxes or Walkman, permeated everyone's life and the physical body of music provided by them enabled people to collect music with enriched visual, tactile and olfactory experiences and grow a very special affective relationship with their music collections. Followed by CDs and MP3 with ipod/iphone, a trend can be clearly observed – “each subsequent format has less physical presence” and “reduced the listener's physical interaction with music [18: 249].” It may be surmised that music never had any physical representation before the emergence of audio recording technology. But before that time music could only be enjoyed when physical elements were gathered together - the musicians, instruments, music hall, music books, concert tickets and even suitable clothing – therefore in this sense, there were actually several possible physical representations of music which allowed people to develop an affective relationship with.

Compared to everyday musical life in the 1990s, today's digitalized musical life is much more convenient, cheaper and with wider choices. An iPod can store tens of thousands of tracks (even local storage of music data can be replaced by online stream), and made available directly to the person. But realistically, digital sound files are just intangible flows of ones and zeros, people cannot hold them in their hands and they do not contain history or physically grow old with people as LPs and cassettes once did. These emotionally undesirable changes have been sensed by more and more music lovers. Perhaps for this reason, the sales of LPs and turntables have been quickly growing globally since 2007. With increasing cultural nostalgia for the physicality of music, some designers have actively reflected on it and critically as well as creatively investigated such questions as: What have we lost or gained in the transition from analog to digital music life? What are the experience aspects from the past that people are still longing for? How to bring those lost but cherished experiences back to today?

#### **4. The Case Studies**

In order to gain a deeper understanding of how designers have responded to cultural nostalgia caused by accelerated technological change in relation to music, we conducted two case studies in the US in 2012: the first, *C60 Redux*, was a personal design experiment by Mr. Martin Bone and his colleagues from IDEO; the second, *TDK Life on Record 2011 Audio Product Series*, was a commercial design project by Ziba Design for revitalizing the TDK brand. Although with very different original aims and final design outcomes, these two cases were both based on the designers' explorations of cultural nostalgia associated with the physicality of music.

The initial data was collected through blog articles and news reports from design-oriented websites (e.g. core77), the official websites of Ziba and IDEO, and the published book “I Miss My Pencil” [1] in which the C60 Redux was presented. It helped us frame the background and narrative of these two cases and prepare the questions for follow-up in-depth interviews. For acquiring more detailed information and verifying the collected

secondary data, two semi-structured in-depth interviews with the chief designers in these two cases – Mr. Paul O’Connor (the Creative Director of Ziba Design) and Mr. Martin Bone (former Design Director of IDEO New York; the Founder of Bone & Black) - were conducted respectively at the Headquarter of Ziba Design in Portland on 12 Oct. 2012 and at Bone’s design consultancy – “Bone & Black” in New York City on 29 Nov 2012.

The analysis of the data revealed important findings for the topic of “*Design and Nostalgia*” at both conceptual and practical levels. Because of the large amount of information and the limitation of this paper’s length, the full findings are not reported, but those related to the questions: 1) How did the designers identify the cultural and emotional value of nostalgia in these two particular cases? 2) As experienced and successful designers, what are their special concerns when conducting projects related to nostalgia and 3) how do they regard nostalgia as a design consideration in general?

#### 4.1 Embodying Digital Music: C60 Redux

In their IDEA Gold Award winning book “*I Miss My Pencil*”, Bone and Johnson [1] presented 12 design experiments exploring the relationship between design, material, human senses and emotions. When they were conducting these design experiments, both were working for IDEO. Bone was the Design Director of IDEO New York and Johnson was a material scientist at IDEO San Francisco. Among the 12 design experiments, *C60 Redux* (*C60*) is perhaps the most eye-catching and enjoyed extensive exposure as a result. It is a music playing system which includes a 12 inch square platter with black vinyl-like surface and music cards which were shaped as cassette tapes. In this design concept, one music album is embodied as a 12 inch square paper, which can be torn into 12 smaller pieces (i.e. music cards). Each music card represents one song or track in the connected device. When a music card is placed on the platter, the corresponding track will be played. Moreover, when different music cards are placed in a clockwise order, the songs will be played in the same sequence. Such a function allows users to physically create “mix-tapes” and give them to others, as people used to do with cassette tapes. With the help of IDEO’s engineers, the concept was eventually developed to be a functioning prototype through RFID (radio frequency identification) technology.



Figure 1 C60 Redux (Photo courtesy IDEO)

To a great extent, the C60 can be considered to be a piece of critical design work, because the main aim was not to encourage people to appreciate the design outcome, but rather to encourage them to think about the transition from analog to digital. During the interview, Bone stressed that C60 was designed without thinking of any commercial value. It was a very personal design experiment that he constructed, based on his own longing for some cherished previous experiences and affective connections that people living in the digital age had lost.

*“C60 is really personal to me ... The reality is we only built it as a prototype and there was no commercial value, it’s an exercise and understanding of what the transition between the two stages would*

*mean ... It really started with this idea of I realized the behavior of myself, somehow, I've sold my soul for the digital music because of the convenience of easy taking stuff, but I realized I completely lost my connection with music ... So I wanted to understand why that behavior shifted in me. If that made me feel sad, what I can do to make myself feel less sad about it and what if I can actively create an object and to use it ... That's kind of how this idea evolved ..."*

Bone himself was a person actively involved in promoting cultural nostalgia for the physicality of music. Being at an appropriate age, he personally experienced the LPs, cassettes and the prevalence of making mix-tapes. The original concept of the C60 was a direct result of his own memory of analog musical life as a part of a shared cultural memory and realizing that some meaningful aspects are missing today, because of the loss of physicality.

*"You know I have a memory, a cultural memory of playing music. It was a very physical thing. You watched the motion of the object. The object itself had a ritual about how you engaged with it. So even from the moment when you used to go to a store, you know, physically look through the racks and the format was so large, you would connect to it, you would connect to people in that large space. Then you get home you unwrap it, you clean it and play it you watch the needle move. All of those elements had completely gone away when you moved to the digital space, yet there is so much more convenience. And so I think that is a kind of design issue when you want to add these elements of the ritual or the things that we have memories with to something that is essentially devoid of tactile quality or any quality."*

The designer's nostalgia in this case was not merely the result of "wallowing in rosy memories of a golden age". Instead it directly encouraged him to critically examine aspects of both the past and present of much loved musical experiences and try to mix them to create something which had never previously existed.

*"Yes! Yes! I really wanted people who are reading the book (I Miss My Pencil) to know and to have nostalgia for that moment that they've lost and see if they could relate to this new version of it. Yes, it was definitely set out to be this kind of nostalgic thing and somehow connected to contemporary technology in contemporary life. ...But also, I don't want to spend my entire existence living in the past. So it's about a balance ... Even ridiculous thing is like, somehow I want to use the 12 inch square. I want to use what was formally the record sleeve in some way. But I don't want to necessarily be using the vinyl. I want to use new technology but I like that space ...We were exploring them (physicality and digital data) and I think we will keep exploring them. There might be a happy media between the two where the spatial relationship, that physicality is a way to sort digital data."*

#### **4.2 Digi-Log: Reviving TDK**

While C60 Redux's main purpose was to evoke nostalgia and provoke reflections on the loss of physicality in digital musical life, interestingly the same cultural nostalgia was explored almost at the same time by Ziba Design from a more commercial perspective. Ziba Design is a world famous design consultancy based in Portland, Oregon, the US. In 2009, TDK became a client of Ziba's. To most people born after the 1990s, this brand is perhaps unknown and has nothing directly to do with their own musical experience. However, if you are now in your 40s (or as young as late 20s in some cases) and were passionate about music during your adolescence and young adulthood, you are very likely to know what TDK, as a legendary brand in relation to music, really meant. From the late 1970s to early 1990s, when cassette tapes were the most important recording media for music, the high quality cassette tapes produced by TDK enjoyed great popularity globally and played a unique role in the

mix-tape making and sharing culture. In essence, TDK the brand once had a unique relationship with music lovers. Subsequently, CDs, MP3 became prevalent and although TDK, as a storage media manufacture, successfully followed the trend to produce CDs, DVDs, memory cards, its special connections with music completely lost.

In 2009, TDK planned to extend their product categories and went to Ziba with a very open mind, asking what they should produce next to take full advantage of the brand. The design outcomes that Ziba provided for TDK were a series of audio products, including two boom-box models (three-speaker and two-speaker models), one sound cube, one headphone set and one turntable, which were intentionally designed to be very heavy, large, extremely well-crafted and most importantly combined the strengths of both digital and analog devices (e.g. touch screen menu and knobs). They do not have iPod/iPhone dock connectors but can be connected to all kinds of digital music devices, which is designated to convey the information that these TDK audio products were designed for the sake of music in general rather than the iPod in particular. They successfully revived the TDK brand in the modern music realm, by actively exploiting cultural nostalgia.



Figure 2 TDK 2011 Audio Product Series (Photos taken by the author at Ziba Design Headquarters)

Although TDK approached Ziba as a new client with a broad open brief, O'Connor and his design team quickly formed strong emotional connections with the brand and intuitively grasped the direction to explore. *"The designers on the project team grew up in the 80s and early 90s, so the name (TDK) brought a flood of memories, of unwrapping a fresh cassette in front of the stereo, crafting a mix-tape for some road trip, some friend, some girl."* [20] With such an affective connection with TDK and a clear understanding of the implicit cultural value and heritage, music-related products were clearly identified in a short time. O'Connor remarked:

*"In the very first few weeks of the project, we looked at a lot of categories. We looked at gaming, soft goods... It didn't take us very long to realize the ... (music). So, if the brands were strong enough, over the time the brands can be migrated away from where they were originally known for. But in this case, the brand (TDK) had been almost dormant for 20 some years ... We knew we were at the moment when we had to kind of make a rebirth or re-announcement of this brand. So, we had to come back to talk about what types of products or what categories would be near enough to the center of TDK. That's why music was the right answer, as opposed to gaming."*



Following this, the designers reflected back on their own memories and histories related to music. They realized that one of the most important reasons for the TDK brand becoming dormant was because the development of digital technology changed the whole landscape of contemporary musical life. The TDK brand is strongly connected with the analog musical experience and associated with tactile and visual qualities, but many of these properties have disappeared over time. Subsequently, the designers tried to clarify the pros and cons of both analog and digital musical experiences and established the design theme as “Digi-Log”. This means to mix the strengths of digital and analog (or old and new) in one product, to facilitate a better musical as well as nostalgic experience.

*“Digital allows you to have access to a lot of things, makes things very easily acquired, but at the same time you are compromising the tactile interaction you used to have. So our original hypothesis was, because TDK’s most reminiscent connection was from this era when people still touched, felt and interacted with things, we needed to make a connection to that, you know, former experiences and memories that we all have, and try to mix it with, in some interesting way, the digital experience we have today. So it’s very interesting and became a design theme we call it ‘Digi-Log’ exploring the tension between the digital and analog experiences.”*

In most contemporary commercial design cases, front-end user studies are usually conducted in order to inform designers about what design problems or opportunities should be addressed. However, the designers of the TDK project started designing immediately, as soon as the boom-box concept was almost intuitively generated (although a cross-cultural user study was conducted afterwards for developing a further design strategy). Thus, the project began to resemble hypothesis testing research.

*“We knew that within the first month. We think there is something interesting with digital and analog, we think it’s relevant to what people are missing in their music experience which is something could be authentic to the TDK brand. So we started designing those boom-boxes right away...What happened was everyone felt great about those products and then the research program was designed to give us better understanding of what was happening with digital and analog, and also paint a fuller picture of where else we could take the brand to. So, it wasn’t like we used the research to discover the boom-box concept. We kind of already knew the boom-box would be cool, it was just intuitive.”*

When O’Connor was asked about the most important aspects of the TDK project’s design process, he indicated that memory and history provided an invaluable source of inspiration. Usually, industrial designers look at what is happening at the moment, and user research is often just a limited focus on what people would like to have now. Then based on such information, designers imagine what may be the future. Past, memory and history are often ignored, in spite of the fact that they might provide designers with alternative thinking and opportunities.

*“When designing something, one of the common things we do is that you look at the competitive landscape, so if you are designing a mouse or a lamp, whatever, you are going to look at - Where are the lamp (design) today? Who’s doing what with lamps? Who’s doing what with mice today? But with this project, I always looked back and thought it really felt like we kind of got into our time machine and went back to that time. And we really had a lot of fun, remembering what was happening back then, why were people actually carrying boom-boxes down the street. They actually did that in the 80s. So, I think what was different here was normal design process you do an audit, you kind of look of what’s happening now. I guess here we got to play more historians’ role. Such a way to be inspired by the past might not normally be there for a project.”*

## 5. Discussions and Conclusion

### 5.1 Designers' Cultural Nostalgia Involvement

Cultural nostalgia is based on shared and directly experienced affective memories. Such social emotion is often restricted by geographical territory and other limitations. However, the joint influence of globalization and accelerated technological change, stimulate a common nostalgia to be shared globally. In the TDK case, the Ziba design team conducted research in Berlin, Sydney, Tokyo, San Francisco and Manchester asking “Music Prophets” (males who are passionate about music) to talk about their past analog musical experiences and contrast these with their current digital experience. The objective of this user research was not to see how international this cultural nostalgia impact might be, but nevertheless the results strongly suggested its cross-cultural influence. Though they grew up in different cultures and speak different languages, the subjects they talked about were the same - vinyl, turntables, cassette tapes, boom-boxes, Walkman, CDs, MP3s and iPods/iPhones.

One interesting finding of the case studies is that both designers were actively and passionately involved in the same form of cultural nostalgia. They personally experienced the specific historical period and have nostalgic memories of being able to physically touch their music collections as hundreds of millions of people across the world also did, which greatly helped them to generate the design concepts or themes appropriate to that generation. In fact, the design opportunities and concepts were discovered and generated almost by intuition, without spending much time on understanding the context, the client, the users or audience.

### 5.2 Differentiating Nostalgic Design from Retro Design

Nostalgic Design is not a simplistic process, though it might appear so. The designers generated their design concepts quickly and many design elements were learnt from the past. However, a successful nostalgic design relies on creatively extracting the original iconic elements and combining them with new ones, to make the final design outcome well situated in the present.

The concepts of “nostalgic” and “retro” are generally considered to be the same by many designers. Because of this over-simplification, “nostalgic” has long been criticized and disliked as twee or as a pastiche. The analysis of the interviews shows that one of the important preconditions for achieving successful nostalgic design is a clear differentiation between *Nostalgic Design* and *Retro Design*. As O'Connor Said: *“There is a distinction to be drawn between retro design and nostalgic design. It feels like if someone calls your design retro, you've missed the opportunity to change the discussion. And the TDK stuff is debatable.”* Indeed, though “retro” may represent different meanings depending on the context of its use, the term has been deployed by industrial designers to describe those new design works that combine a heavy influence of what might be construed as old fashioned visual elements but do does not involve sufficient original and innovative design input. In contrast, nostalgia is a subjective experience and therefore nostalgic design should be conceptualized as a design process taking nostalgia as an intended user experience. Of course, by making new design work look old is one way to achieve this, but it is neither the only approach nor necessarily a good one. Both Bone and O'Connor consciously avoided making their design outcomes simply retro. For example, O'Connor told us: *“We were trying really hard to avoid being retro in the TDK project. I think it explains why, if you look at the (TDK) boom-box, it's very iconic, but it's pared down and simplified, it's not fussy and filled with details. It doesn't have a lot of little switches that kind of stuff ... it was three speakers, two knobs and a handle, done. We were trying to make it iconic, make it nostalgic, reminiscent but not retro. The idea that was unique to this project was being more historians' and trying to treat*

*the past with respect but not rip it off not try to ape it or copy it directly.* Furthermore, these two cases both managed to revive the missing physicality of musical life back to the present, whilst retaining what many people admire about the digital experience.

### **5.3 Be Culturally Critical and Commercially Successful: Nostalgia as a Topic of Design Research**

Nostalgia has become an important design concern in the real world and it indeed requires more conscious attention from design researchers. As the two cases have shown, nostalgia (especially cultural nostalgia) can be expanded by designers to provoke critical thinking, as well as to achieve commercial success. These two aims are not necessarily conflicting. In the case of the C60 Redux, facing accelerated technological change in relation to music, the cultural nostalgia influence was developed as a critical tool. It encouraged both the designer himself and audience to question such trends as dematerialization or “newer, smaller, lighter are better” and realize that these new conveniences came at the cost of some old but humanizing aspects, such as the affective connection with the physical objects. At the same time, by creatively combining new technology and old desirable elements, designers also sent a critical signal to prevent people from being simply nostalgic or thinking the past is always better than the present. We believe that C60 Redux can be further developed to be a commercially successful design, though Bone decided not to do so. In the other case, the TDK audio product series was designed for mainly commercial reasons, but because of cultural nostalgia, the TDK brand and those well designed and crafted digital-era boom-boxes also became interesting cultural entities. They could also spread similar critical information to the consumers as the C60 Redux could.

“Nostalgia is part of the fabric of everyday life [7: 102].” Everyone would need to be nostalgic at certain phase of life and generally, there are three essential prerequisites for the need for nostalgia. The first is change. If people’s lives never changed and everyone kept doing the same routine only as robots in factories, none would have the need for nostalgia. Similarly, if the world never changed, and society, technology, culture never developed or evolved, there would not be such a phenomenon as the “nostalgia wave”. But in reality, the only thing that does not change in this world is change itself. The second is remembering. Nostalgia is a memory-based experience. A person without memory has neither the need nor the affective source for nostalgia, he/she cannot sense the change, cannot recognize anything associated with his/her own history. To this person, there is no past but only a constant present where every day, hour, minute or even second is isolated. The last one is forgetting. Remembering and forgetting are selective and “nostalgia is memory with the pain removed [17: 8].” Nostalgia is not induced through absolutely accurate memories, but rather by idealized ones. If every single detail of the past were remembered accurately by everyone, nostalgia would significantly lose its appeal and happen to fewer people. Given the possibility that technological change is reforming every aspect of the world in a continuously accelerating manner, it is very likely that the public desire for cultural nostalgia is growing. Not only can nostalgia provide people with a positive affect and feeling of warmth, but it might also provide an opportunity to critically reflect on their past and present, and what meaningful attributes have been lost when pursuing the obsession of ever-changing new technology. In this sense, designing for nostalgia is more about making technology that is more humanized, retrieving and carrying forward the lost but culturally and emotionally valuable aspects of the past and providing a better alternative future for human beings.

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## 7. References

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