Inalienability: Understanding Digital Gifts

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ABSTRACT

This paper takes on one of the rarely articulated yet important questions pertaining to digital media objects: how do HCI and design researchers understand 'gifting' when the object can just as easily be 'shared'? This question has often been implied and occasionally answered, though only partially. We propose the concept of 'inalienability', taken from the gifting literature, as a useful theory for clarifying what design researchers mean by gifting in a digital context. We apply 'inalienability' to three papers from the ACM Digital Library and one ongoing project, spanning nearly two decades of HCI and design research, that combine 'gifting and 'sharing' in their frameworks. In this way we show how applying the concept of 'inalienability' can clarify behaviours that mark gifting as a unique activity, frame research questions around gifting and sharing, outline specific next steps for gifting research, and suggest design strategies in this area.

CCS CONCEPTS

• **Human-centered computing → Interaction design theory, concepts and paradigms**.

KEYWORDS

gifting, inalienability, sharing, strong concepts

1 INTRODUCTION

How can an exchange of text messages be given as gift, or how is it not already seen as one? Why speak of file sharing in terms of gift-giving in cases where there is no personal connection between giver and receiver? Why does gift-giving appear to be a useful strategy for technologies

that make sharing more difficult? Gifting as a process or ritual is increasingly used as a framework for understanding digital exchanges, even though digital media objects are more often copied than given. The HCI literature is peppered with work directly or indirectly addressing gifting, yet when taken together, they seem surprisingly heterogeneous in their application of the concept of gifting to their work.

Intuitive definitions of gifting in relation to digital objects work well for developing individual designs, but design research into gifting as a whole has suffered from a lack of consistency in what exactly is intended or understood as a 'gift'. The most problematic of these inconsistencies has been the varying interpretations of 'gifting' in relation to 'sharing'. This has proved to be a stumbling block in our attempts to design for digital gifting or even to articulate the design challenges we face. Finding no universally accepted definitions or frameworks in the HCI or design research literature, we found ourselves, in Höök and Löwgren's terms, in search of a 'strong concept' around which we could orient our work [25].

We therefore turned to the gifting literature, where we uncovered a term that we have found helpful in understanding our own work and, we believe, earlier HCI and interaction design projects. In this paper, we present the most salient points of the extended literature review we undertook in order to find the term we propose – inalienability – and then demonstrate through case studies how inalienability can illuminate the relationship between gifting and sharing. In general, gifts tend to have more markers of inalienability than shared objects do, and increased inalienability tends to correspond to increased perceived personal value in a gift [30]. Our adaptation of the theory of inalienability for the HCI and design community clarifies problems arising from the easily conflated practices of digital sharing and digital or hybrid gifting, and it can generate new avenues for design research.

This paper begins with the literature review we undertook in our search for a concept to explain existing work on digital gifting and generate new HCI and design knowledge that we could relate to existing work. The literature review is divided into four parts. First is an overview of some of the prominent ways that gifting and sharing have been discussed in the HCI and design literature and the reasons why we find these approaches to be problematic. Second is our interrogation of

key works in the gifting literature that pertain to gifting in relation to sharing. Third is our exploration of inalienability as drawn from the gifting literature. Fourth, we contextualise the concept of inalienability in relation to the HCI and design literature. Then we apply our fully elaborated concept of inalienability to four HCI and design case studies chosen for their specificity to our research question and the range of contexts they cover. These help to illustrate the ways in which we believe that inalienability can shape both design practices and the means by which we articulate the aims, mechanisms, and results in HCI and design research around gifting. We also suggest three specific design strategies implied by our discussion. We conclude our paper with a summary of inalienability's contribution to digital gifting research.

2 THE PROBLEM WITH GIFTING AND SHARING IN THE HCI LITERATURE

Simply put, the problem our paper seeks to address is this: the lack of a consensus around what makes gifting different from sharing in the HCI and design communities has already led researchers to overlook or misidentify components of gifting that, if understood through a reliable theoretical lens, could support richly meaningful and exciting experiences. In this section, we identify representative works in the HCI literature around gifting: those investigating topics of sharing or reflection in which gifting emerges as a finding and therefore attempts to integrate gifting into frameworks of sharing, those whose use of gifting implies certain conclusions around physicality, those whose use of gifting implies precisely the opposite conclusions, and those that set out to design for digital or hybrid digital-physical gift experiences. Note that it is not our purpose here to question whether the work discussed here is valid, but simply to note the radically different conclusions that can be drawn by using 'gifting' in analysis without a common understanding of the characteristics relevant for HCI and design.

Some researchers have introduced 'gifting' as a term or theoretical framework for understanding elements of their work that might otherwise be construed as sharing. William Odom and colleagues [38] studied how teenagers value their virtual possessions. Their participants spoke in terms of gifting when discussing digital music playlist sharing, which only felt like gifts when they were personalised (not physicalised). Anja Thieme and colleagues designed the 'Lovers' box' to explore how couples might reflect on their relationship by exchanging video messages contained in a wooden box [55]. These authors, too, use gifting to interpret participant behaviour that closely matched gifting behaviour. We also find gifting in two design research projects for social mobile digital music sharing: Push!Music by Maria Håkansson

and colleagues [24] and Pocketsong by David Kirk and colleagues [27]. Håkansson et al use terminology such as 'sharing' and 'mobile awareness systems' when describing their aims and related work, turning to gifting only when users in an early trial described their experience as such and wanted mechanisms to reciprocate. Pocketsong emerged from similar research interests and imperatives as Push!Music, but focuses on the sociality of the experience [27, p. 51]. Kirk et al use the term 'gifting' to refer to the action as commonly understood, rather than rooting it in any particular aspect of the literature. In fact, they do not support their use of 'gifting' with any external references beyond Håkansson et al's Push!Music. The rest of these authors refer only to the work of Alex Taylor and Richard Harper [54, , discussed in detail below] when mentioning gifting, except for Thieme et al (2011), who also cite Mauss [33, see below]. Thus a researcher turning to any of these valid, interesting, and useful pieces of research explaining sharing in terms of gifting could easily conclude that gifting differs from sharing only in ways that researchers (including Taylor and Harper [54]) might make intuitively, perhaps supplemented only by Mauss's anthropological text from the 1920s on the exchange economies of certain Pacific island chains [33].

In similar cases, gifting emerges as a finding in work investigating sharing practices, and the term 'gift' with its everyday connotations is quite sensibly used to categorise and/or describe those findings. However, it is then easy for other researchers to simply take those conclusions at face value when other work using gifting in its framing or analysis comes to diametrically opposite conclusions. One such conclusion has to do with the perceived need for gifts to have a physical aspect while digital objects can be shared. For example, Jarno Ojala and Sanna Malinen [39] studied photo sharing and management practices and noted that participants who wanted to make gifts did so only after compiling multiple photos into a photobook or physicalising the photo(s) by making DVDs or printouts (see also [48, p. 145]). Similarly, Tuck Leong and Peter Wright [31] examine social practices around digital music. They, too, find that the act of giving a music file to another person is seen as sharing rather than gifting because of its lack of physicality, leading them to categorise gifting as a subset of sharing [31, p. 957]. However, the perceived division between these conclusions around gifting and sharing related to physicality is turned on its head by other researchers, who describe sharing practices as instances of gifting, even asserting that what they observe *is* gifting because it has the characteristics *of* gifting. A good example here is Antti Salovaara's study of the Comeks system for creating simple comics on a mobile phone [47]. Salovaara establishes his line of research as technologically mediated communication. Then he notes the reciprocity found in message exchange and establishes such exchanges

as examples of gifting, basing this argument on the work of Taylor and Harper [54]. The rest of the paper treats the creation, sending, receiving, and replying to Comeks comics in terms of gifting, though this is at times conflated with discourse analysis, as when a very low rate of reciprocation is described 'as a sign of relatively infrequent turn-taking' [47, p. 84]. Gifting and sharing are also brought together in contexts where the physical components of the interaction are disregarded almost completely: online file-sharing. The work of Jörgen Skågeby and colleagues comes easily to mind (e.g. [50, 51] as well as more recent work around Facebook photo-tagging [32], gifts of money on WeChat [59], and the erstwhile Facebook Gifts function [28]. It is perhaps ironic that some of the most thoughtful, rich, and nuanced applications of gifting theory to sharing practices are conducted in studies of online-only interactions, work that is useful but not necessarily comprehensive for the broader interests of HCI and interaction design.

Digital or hybrid digital-physical gifting as an end in itself has become an increasingly popular topic of interaction design research, though it is still a very niche area. Such projects face the challenge identified by Hyosun Kwon and colleagues that the experience of either giving and receiving a digital gift is less 'exciting' than for a physical gift in each of the five stages of the gift-giving process that they identified [29]. Given the examples above, it would be reasonable to assume that a digital gift would either require a physical element to change hands (e.g. [31, 39, 48]), require no physical exchange at all (e.g. [47]), or simply emerge on its own as a way that participants make sense of a media-sharing experience (e.g. [24, 38, 55]). Daniela Rosner and Kimiko Ryokai leveraged both physicality and hand-crafted design in combination with digital technologies to create Spyn, a project in which a person knits a gift with data for their intended recipient pinned to places in the fabric [44]. Other projects have eliminated physical artefacts from the gifted object altogether, instead using digital technologies to scaffold gifts of personalised museum interpretations [15, 16] or music playlists that, like Spyn, are augmented with personal messages from the giver [52]. In the cases of Fosh et al and Spence et al, these gifts had a strong physical component, though this was to be found in the giver's and receiver's physical engagement with the place in which the digital gift was made and then experienced rather than any physical object changing hands. This recent work clearly demonstrates that digital sharing and digital gifting have much in common. The problem is that the difference between them has not yet been articulated in a way that designers or design researchers can put to consistent use.

3 GIFTING AND SHARING IN THE GIFTING LITERATURE

In a digital context, both sharing and gifting involve selection and transfer without the requirement of compensation, and both may involve social or psychological benefit. However, this feels lacking on an intuitive level. How would you feel if your birthday present from your beloved partner turned out to be a link to a video that they had broadcast to all 2,000 of their followers on social media? Digital gifting strikes us as an instance in which design researchers run the risk of paying more attention to the technological mechanisms of sharing (i.e. perfecting the video link) than to the personal significance of gifting (i.e. conveying a sense of care and pleasure, see [58, p. 108]).

The natural place to turn for answers would seem to be the work of Russell Belk. His rigorous gifting research predates the internet and tracks its rise in relation to gifting. For example, he revisits his pre-internet ideas on the links between consumer choices and identity in 'Possessions and the Extended Self' [7] with 'Extended Self in a Digital World' [8] and 'You Are What You Can Access: Sharing and Collaborative Consumption Online' [5]. He also observes what we have seen in our own work and noticed as implicit in the literature, that there is no sharp line dividing sharing and gifting [4, p. 719]. However, Belk consistently argues that reciprocity is at the heart of gifting and is the key factor distinguishing it from sharing: 'whereas the gift imposes an obligation of reciprocity, sharing does not. ... By remaining perpetually indebted, the exchange partners remain linked' [4, p. 718]. While reciprocity is certainly an important element in traditional gifting situations, we argue that reciprocity unhelpfully underlies his definition [3] of sharing as our use of another's belongings and their use of ours. This focus on reciprocity in both gifting and sharing actually exacerbates the problem of differentiating one from the other. We hazard the guess that Belk's focus on reciprocity is fostered by his positioning within the consumer research community. This positioning is obvious in the outlets for his work, but also in his arguments around personal identity influencing consumer behaviour [7], expanding to his argument that the internet lets people express their identities without ownership [8]. We do not criticise Belk's work, merely point out that his fundamental assumptions about reciprocity and identity cannot tease apart all of the behaviours and attitudes that we see in our own findings or in the published work of others on gifting in HCI and design.

The term 'gifting' can refer to a truly vast array of exchanges [49], from personal gifts given on fixed occasions such as birthdays [13] or Valentine's Day [37], to formal gifts given and received in impersonal situations [14], to gift-like behaviours such as tipping or bribing (summarised

in [12, p. 419]). We find the following definition of gifting to be helpfully simple without sacrificing breadth: 'the gift involves the selection and transfer of something to someone without the expectation of direct compensation, but with the expectation of a return, be it reciprocity, a change in the relationship with the recipient, or a favor or another social or psychological benefit' [12, p. 414]. This definition is particularly relevant to what Davies et al would refer to as 'relational' gifting, the one-to-one, personal gifting model used in our project and implied by many works in the HCI and design literature. Its opposite is 'transactional' gifting such as tipping, giving to charity, or file sharing [12, p. 414]. Some (e.g. [17]) might argue with Davies et al's exclusion of file sharing from the otherwise rich social practices of relational gifting. Regardless of that argument, though, Davies et al's terms do not tease apart the various types of gifting and sharing behaviours seen *within* relational gifting.

We believe that the crux of the difference lies in one easily overlooked phrase in Davies et al's definition: 'of something to someone' [12, p. 414]. Whereas sharing online involves selecting a digital media object that the sharer finds interesting, either for purely personal reasons or because he or she feels it would appeal to the group with whom it will be shared, that digital media object is offered to everyone equally, regardless of any personal relationship between sharer and receiver. In the case of gifting, though, the gift is chosen with a particular receiver in mind with the intent of pleasing that person. While a giver might give multiple instances of one object to several different receivers whom that object happens to please, each receiver is considered individually, and the suitability of the object is considered (however briefly) on a case-by-case basis. Therefore, the phrase 'of something to someone' needs exploration to understand the difference between sharing and gifting, especially using digital means of delivery, depending on the 'something' and the 'someone'.

When searching for a deeper understanding of this 'something' and the 'someone' in a digital context, the existing HCI and design literature offered nothing that we found useful. Therefore we had no choice but to look deeper into the gifting literature, going as far back as studies on Oceanian gifting economies studied nearly a century ago and re-evaluated from a feminist perspective over the course of the past 50 years, before we found a promising candidate for a concept that would apply to digital gifting.

4 INALIENABILITY IN THE GIFTING LITERATURE

One concept that has generated discussion in the gifting literature is 'inalienability', a term with multiple different though closely related definitions. The most substantive work devoted to it is Annette B. Weiner's *Inalienable Possessions: The Paradox of Keeping-While-Gifting* [57]. Weiner's full argument of a feminist reappraisal of Maussian gifting economies

is far outside the scope of this paper and, possibly, of little use to the HCI and design communities. However, at the heart of her argument is the idea that the value of a gift can relate to its connection to the person who owned it (i.e. its giver). Some objects and the stories around them empower the individuals or groups who hold them. For the purposes of Weiner's larger argument, she emphasises the importance of keeping possession of objects of personal and/or social significance – because giving away the *objects* can also give away some of their personal or social *value* to the receiver. At one extreme is a Maori chief whose 'sacred cloak' indicates 'that she *is* her ancestors' [57, p. 6, emphasis in the original]. Towards the other end is a piece of antique furniture held by one family for generations. Both of these examples are drawn by Weiner herself, who regards her conclusions drawn from non-Western, traditional Oceanian societies to be relevant to Western societies where inalienability can lack the social impact she describes in her ethnographies [57, p. xi].

Inalienability is not restricted to only the most valuable objects held by families with power or wealth. 'In general, all personal possessions invoke an intimate connection with their owners, symbolizing personal experience that, even though private or secret, adds value to the person's social identity'[57, p. 36]. Her term 'inalienability' is used to name that ability of a *personal* possession to invoke and symbolise what cannot otherwise be seen. Gifts from or to people we know are nothing if not personal possessions. As inalienable objects, gifts 'retain for the future, memories, either fabricated or not, of the past' [57, p. 7]. Weiner gives examples of these inalienable objects, and they read like a holiday shopping list or a box of treasured family heirlooms: books, letters, and trinkets reminding their owners of past events and social ties [57, p. 1, epigraph], as well as more formally constituted oral histories, including those connected with particular objects or landmarks [57, p. 37]. Weiner's work has its critics, yet even they stress the fact that inalienability 'is not so much possession as authorship or the memory of the giver, which remain intrinsic to them' [56, p. 447].

Marcel Mauss, one of the two originators of gifting as a research area within anthropology and sociology, also conducted fieldwork in Oceania and other non-Western societies. Mauss himself, writing in French, never used a term directly translated as 'inalienable' but referred instead to 'the spirit of the gift' [33]. These are generally regarded as equivalent. Diane P. Mines and Brad Weiss [36], for example, note that the ability of gifting to 'maintain social relations among exchangers... is made possible by the "inalienable" nature of

gifts, what Mauss referred to as the "spirit" of the gift, meaning that the giver remains always part of the thing given' [36, p. 161] [1].

Marcos Lanna speaks in almost the same terms as Mines and Weiss in explicating Mauss: 'something of the giver goes along with what is given, being inexorably connected to the given object' [30, p. 211]. The more of the 'inalienable' that a gift contains, the more valuable it is to the receiver [30, p. 211]. For example, if someone replaced a commodity like a can of soup from my cupboard with another identical can of soup, I likely would not care. But if someone tried replacing the violin my grandmother gave me on her deathbed with an instrument of equivalent monetary value, I would put up a fight. The 'indexicality' of the violin to my grandmother and her gift to me is part of its inalienability [22, pp. 18-19]. Gifts as 'objects exist in a second, more personal sphere, made of the web of personal relations in which each of us is bound and through which we transact gifts with each other. These gifts bear a general cultural meaning, but they also bear the particular personal meaning of the relationship in which they are transacted' [10, p. 133]. In other words, inalienability appears or increases when the relationship between giver and receiver is 'affirmed' or 'strengthened' through gifting [46]. Straightforward empirical research supports these findings, as well. In fact, contrary to what most givers (i.e. most people) assume, receivers feel closer to the giver when receiving gifts that reflect the giver's interests [1], and receivers generally prefer gifts in which they can perceive the giver's identity [40].

5 DIFFERENTIATING THE INALIENABLE

Some of these arguments sound more appropriate in the context of the Maori chief's cloak than a 'World's Best Dad' coffee mug given on Father's Day. However, there are parallels to be drawn between the two, especially when considering digital media objects.

A key contribution of inalienability to HCI and design is the language for distinguishing between sharing and gifting, along with an understanding of why it is important to differentiate the two. Research that views online sharing through the lens of gifting, such as work by Skågeby and colleagues (e.g. [50, 51]), is a prime example of how inalienability can clarify the difference. It may be true that the motivation on the giver's part is to give of his or her time and effort, but the inalienable is a function of the receiver at least as much as the giver. Whether a gifted object is inextricably

tied to the giver in the receiver's mind is likely but not certain, and possibly not always desired. Thus if the people with whom digital objects are *shared* do not associate them with the person who shared them, the digital objects are not necessarily perceived as *gifts* at all. Sharing can seem to be like gifting because the infrastructure in which we share has some sense of personal connection, as found in gifting economies, rather than the purely impersonal relations of a commodity economy [23], but that does not mean that sharing equates to gifting. Inalienability can also explain why some researchers' participants see physicality as a requirement for gifting (e.g. [31, 39, 48]) while others participants are happy with digital-only personalisation (e.g. [16, 38, 52]). Both of these strategies satisfied the need to make the digital gift inalienable in a practical and legible way, whether by printing an existing photo [48] or attaching a digital photo to digital music [38].

The concept of inalienability thus begins to explain the function of effort in gifting. Henry S.J. Robben and Theo M.M. Verhallen [43] established the positive effect of learning about the effort a giver went to in getting them a gift, findings supported by HCI researchers including Daniel Gooch and Ryan Kelly [20] and Hyosun Kwon and colleagues [29]. Inalienable objects are interchangeable commodities transformed by personal meaning, which is no longer separable from the object. In any case, inalienability is a relational condition. Givers must make an effort to invest something of themselves in the gift, even if that effort is limited to making a selection and having the object delivered (both of which can be accomplished in seconds, especially if the giver chooses a digital gift according to a recommender algorithm and has it delivered online). The effort may go astray: the giver may invest something of herself that is not perceived by the receiver, while the receiver may infer a different type of investment than was intended by the receiver. Think of hosting a large party where one guest brings a cheap bottle of wine and another drives across town to buy a bottle that costs the rest of their disposable income for the week. In the melee, the host loses track of who brought which bottle, or whether those two guests had brought anything at all. These are still gifts, as the host knows she did not buy them for herself, but their inalienability has been diluted across the entire guest list. The host may not even bother to taste the wine that was acquired at such cost and effort. Without effort on the part of the giver and legibility of that effort on the part of the receiver, the personally meaningful gifted object becomes one that is only shared with whomever happens to be interested. What is lost is the bottle's inalienability.

We can also use inalienability to draw connections between the 'part of the giver's person that goes with the thing... given' [30, p. 211] and the level of 'excitement' felt by people giving or receiving a gift, which tends to be higher for

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[1]Some have questioned Mauss's translation of the interview that led to his formulation of 'the spirit of the gift', but we agree with David Graeber that 'Mauss had, himself, produced a kind of myth: but like all good myths, Mauss' did capture something essential, something that would have been difficult to express otherwise. If it had not, it would have been long since forgotten' [21, p. 155].

physical than for digital gifts, especially when exchanging and revealing those gifts [29]. Kwon et al chose 'excitement' as a blanket term encompassing any of the emotions felt as the opposite of 'calm', used by Belk [6] to convey a low level of reaction to a gift. Although neither Belk [6] nor Kwon et al [29] differentiated between the excitement caused by the gift itself and that caused by the degree of 'personal meaning of the relationship in which they are transacted' [10, p. 133] – and we doubt that anyone could – we feel confident that the latter would generate excitement[2]. Studies comparing the personal meaning of cherished objects in the home also showed a distinct preference for physical over digital, including photographs [19]. We would investigate a gifted object's inalienability to delve deeper into the notions of excitement, personal meaning, and cherishing.

The distinction between alienable and inalienable objects is not binary. This is especially true in the case of digital media objects shared online. If, for example, I read a news story about a tweet sent by George Takei (an actor on the original *Star Trek* programme) that links to a previously undiscovered *Star Trek* blooper, I have consumed the *Star Trek* content via my relationship with that news organisation, not with George Takei. If I follow Takei on Twitter and find the video that way, I have enough of a relationship with him that he has not blocked my account, though still that video carries almost nothing of our relationship with it. If I find the same link on Takei's private Facebook page, meaning that he has actively requested or accepted 'friend' status with me, the video carries our tighter connection along with it. If Takei sends me that link in a WhatsApp group with only four members, I know that he has me in mind (along with two others), and it is that much more inalienable. If he creates the video only for me because it refers to a private joke between the two of us, and then gives the video only to me, that video is truly inalienable. Takei's identity, his perception of what I would or would not appreciate, and the relationship between us is bound up in this video. As long as I or someone close to me remembers its origin, it remains inalienable. Within the confines of a *Star Trek* fan club or convention, possession of that video would increase my status. I might share a link to the video in order to make my claim to that higher status, but I would jealously defend against any accusations that the video was made for someone else. In my defence, I might produce the trace of Takei's presentation of the video to

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[2]Ruth et al [46, p.397] give an example where an otherwise excitement-worthy object caused the receiver to feel anger and sadness towards the giver. Between that and the wealth of research into failed gifts, we do not assume that objects themselves would always generate excitement. However, we believe that the existing research on the effort involved in selecting and presenting gifts and how those gifts may be received, which lies far outside the scope of this paper, would not directly contradict our claim about personal meaning and excitement. See e.g. [40, 46].

me and me alone, perhaps scrolling through my message history to the embedded video. My continued possession of the video would then act as an example, albeit not religious, of Weiner's 'transcendental treasures' [57, p. 3] connecting me to my peer group and the person, George Takei, whose *Star Trek* character was committed to film before I was born, and whom I still look up to.

6 INALIENABILITY EXAMPLES

We offer brief analyses of how inalienability might clarify or inform three examples of gift-related work in the HCI and interaction design literature over the past decade and a half plus a fourth example drawn from an ongoing research project. One interesting result of applying inalienability to research into digital domains is that some types of gifts combine or confuse objects with the work involved in creating them (as does the *Star Trek* example above). Although effort corresponds to successful physical gifts [1, 40], James Carrier asks whether the gift of a home-cooked meal is the food we eat or the work that went into cooking it [10, p.122]? Of course, Carrier offers no clear answer. Similarly, when gifting a non-physical object, inalienability can connect receiver and giver via the digital gift itself and/or through the making or selection process, as the examples below demonstrate.

We stress that we intend no criticism whatsoever in the following analysis. It is only from our own perspective, developed through our involvement with gifting- and sharing-related projects, that we wish to look again through the lens of inalienability at what we consider to be important work in this area. For our case studies, we have selected 1) one of the most cited HCI papers on co-located gifting and sharing, 2) a prominent paper directly relevant to online gifting and sharing, 3) a recent paper describing a design that explicitly attempts to transform sharing into gifting, and 4) an ongoing research project on gifting digital media objects.

Taylor and Harper (2002), 'Age-old Practices in the "New World": A Study of Gift-giving between Teenage Mobile Phone Users'

In Taylor and Harper [54], inalienability reveals two issues that might otherwise be overlooked: questions of joint ownership of digital communications, and potential confusion arising from the ownership of multiple objects that are indistinguishable to the human senses.

The authors explicitly establish gift-giving as a practice that their ethnography of teenage mobile phone users resembles. They therefore use gifting as an extended and extensive metaphor for the exchange of text messages, among other phone-oriented behaviours. The gifts of text conversations that the authors propose raise questions about ownership not unlike the complex Oceanian practices of giving away certain objects only to know they must return. These 'gifts'

are certainly inalienable in the sense that they maintain a connection to the giver, but that connection might be so strong as to render them impossible to truly 'gift'. They may still jointly belong to the giver in the sense that the giver contributed to the conversations and may therefore demand the gift be revoked. The ideas underpinning inalienability make it immediately clear that these 'gifts' would retain important hallmarks of sharing, and that their obvious connection to the giver might cross the line from 'trace' to legal and/or moral ownership.

Also, while the inalienability of the gift of a physical object containing digital conversations is clear in terms of the link between giver and receiver, that connection needs to be made legible for the object to maintain its inalienable status. If this is a unique and memorable gift contained in, for example, a USB stick, it is easy to imagine it retaining its trace of the giver well into the future. But if the practice should become so popular that a receiver has dozens of identical USB sticks? Without a clear, instantaneously human-readable marker of each stick's giver and/or content, it may be too much effort to investigate which is which. The indexicality of each could be confused, threatening their inalienability. And if the objects should degrade, or the technology for reading their contents should change? The same technology that enables inalienability in one circumstance may hinder or even prevent it in others.

McGee and Skågeby (2004), 'Gifting Technologies'

In [34], inalienability indicates some of the limits of gifting used as a metaphor in online sharing. McGee and Skågeby's paper promotes the design of technologies to support the needs and desires of people to give gifts. It offers a thorough discussion of gifting rooted in its literature, plus a detailed examination of gifting motivations. However, by focussing on gifting practices in an online sharing site, the authors skip over the question of which elements might be more accurately understood as sharing and which as gifting. A similar conflation of the two practices can also be seen in Ripeanu et al's 'Gifting Technologies: A BitTorrent Case Study' [42], Giesler and Pohlmann's 'The Anthropology of File Sharing: Consuming Napster As a Gift' [17], and to a lesser extent Bergquist and Ljungberg's 'The Power of Gifts: Organizing Social Relationships in Open Source Communities' [9]. Again, we stress that we are not trying to criticise any of these authors for their approaches – our intention is to better understand the ideas they raise.

For these studies, it is worth going back to Mauss's quaint phrase, 'the spirit of the gift' [33]. A member of the 'Web discussion group devoted to a specific file sharing tool' [34, np] that McGee and Skågeby studied might be able to trace the origin of a downloaded file. However, as far as we can tell, there is no indexicality between the giver in his or her role as

giver rather than creator or originator, and especially nothing of his or her role as giver to a particular recipient. Belk [3] would seem to agree that sharing is a better framework than gifting in such anonymous and unceremonious – i.e., alienable – exchanges [3, p. 132]. In McGee and Skågeby's case, inalienability suggests that the receiver's experience might differ from what the gifting literature would lead us to expect. It also questions the social bonds that the gifting literature would lead us to believe would be created or strengthened through these interactions if they truly are well described in terms of gifting. Interesting research questions arise as to the role of the shared file's creator, which might have parallels with manufacturers, especially craftspeople [9]. Additionally, the sites hosting the communities in these studies might have parallels to brands or retailers (see e.g. [41, 45]). Gifting is not necessarily an invalid metaphor, but looking carefully through the lens of inalienability does indicate that the metaphor should not be taken too far without significant caveats.

Spence et al (2017), 'The Rough Mile: Testing a Framework of Immersive Practice'

In [52], inalienability pinpoints the line that the authors crossed in transforming a sharing activity into a gifting activity. The stated aim of Spence et al's project, *The Rough Mile*, was to transform a digital media object (a music track) into a gift despite the fact that the same object could easily be shared with no cost, no effort, and no 'excitement' [29]. For most, the project succeeded. The paper details its use of immersive theatre practices to achieve its end. We argue that what those practices did, primarily, was to instil a sense of the inalienable in a digital media object. Givers not only chose the songs (digital media objects) that they wanted their receivers to hear, but they also revealed their reasoning to their receivers in short audio recordings made in situ. Moreover, their choices were spurred by odd questions in an unusual context, making their choices and reasonings all the more revelatory. Finally, each giver's investment (none of which was financial) was made legible because each receiver went through the same process. Links to the songs that were eventually chosen could certainly have been shared, but the components of the overall gifting experience either strengthened the inalienability of the gift or ensured that that inalienability would be easy to perceive.

Had the nature of the gift-creation process been explained to participants in advance, *The Rough Mile* might have qualified as the gifting of an experience and therefore benefitted from analysis in terms of J. Clarke's 'The Four 'S's of Gift-Giving Behaviour' [11], in which 'sacrifice' could be compared to effort, 'surprise' and 'suspense' could be understood as underscoring the gift's impact on the relationship between giver and receiver, and 'sharing' – in Clarke's use of

the term – as increasing the inalienable connection between the gifted experience on their relationship. In *The Rough Mile*, though, participants crossed the line between sharing and gifting through their involvement in an experience drawn from practices of immersive theatre in which the givers did not know what form their gifted experience might take before giving it away. This approach, which embeds the giver's spontaneous reactions to a novel situation into the inalienability of their gift, may prove fruitful in the design of gifting experiences.

The GIFT app (2018)

In the final example, the broad question of what might constitute a personally meaningful digital gift has been made manageable by understanding personally meaningful gifts in terms of their inalienability. We are currently exploring gifting in relation to digital media objects created, given, and received in the context of cultural heritage institutions. One strand of this work is an arts-led design of a smartphone app that enables museum visitors to create gifts for a friend, family member, or colleague. Of course, no museum visitor can give away the museum's artefacts. Rather, visitors create and send representations of the objects that they would give away if they could, objects chosen with their receiver in mind. In this app, the representations take the form of photographs of the chosen objects taken by the giver. Givers also make audio recordings explaining why they chose their objects and leave clues of how to find them if their receiver goes to the museum to experience their gift. Finally, givers record a 'gift card' message and choose a song to further personalise their gift. An in-the-wild deployment experienced by over 200 museum visitors in July 2018 suggests that visitors tended to make sense of the idea of 'gifting' a digital version of the museum experience once they used the app for themselves.

The project's creative lead, John Hunter, described how the design team understood the distinction between sharing and gifting. For them, sharing is sending something that already exists to a receiver, but potentially to the wider public, as an outward reflection of the sender's interests. Gifting, on the other hand, is an investment of time and effort to choose the right thing for a particular person based on their relationship. 'That's the difference there, is that it has to be something that would work especially well for that person because you had that person in mind' (Hunter interviewed by Spence, 2018). By designing the entire experience around the act of holding the receiver in mind, the gifts were frequently perceived as personally meaningful. The design actively embedded inalienable traces of the giver at each stage of the gifting process and intentionally avoided any easy mechanisms for sharing gifts beyond the individuals for whom they were intended. While some participants used the term 'sharing' to describe the mechanism for exchanging digital media objects, very few expressed any wish to share their gifts more widely, while many spoke warmly about the 'connection', 'meaning', or 'emotion' they experienced in relation to their receiver (or giver). As researchers, we found inalienability to be the crucial concept for pinpointing the design aim and then making sense of participant reactions when they used the terms 'sharing' and 'gifting' almost interchangeably.

7 DISCUSSION: WHY SHOULD HCI OR IXD CARE?

Inalienability gives HCI and design research the language for understanding differences between the sharing and gifting of digital content. It draws our attention to which elements of a design we can employ in order to alter people's perceptions of their digital exchanges and thereby encourage the types of behaviours we are designing for. Inalienability is particularly important because it acknowledges the fact that there is no sharp line to be drawn between sharing and gifting. Therefore, it is possible to combine design strategies for sharing with those for gifting, always bearing in mind that stronger traces of the giver will tend to correlate with a stronger sense of gifting.

Inalienability also helps to explain some of the differences between the experience of giving or receiving digital gifts in relation to physical gifts [29]. It charts a response to an assumption that is often made and not always false: that digital gifts are pale substitutes of physical gifts, and therefore digital technologies are more useful as mechanisms of exchange (e.g. emailing a gift voucher) than as mechanisms for creating gifts. Instead, we have found that inalienability provides a way of articulating the relationship between gift and giver that is central to both digital and physical gifting. Inalienability involves an indexicality between gift and giver that can be more important to the receiver than the gift itself [1, 18].

For HCI and design, inalienability indicates ways in which we can make digital media objects giftable instead of or in addition to being sharable. This changes the focus from ease of transmission to means of embedding traces of human intention in the digital. Not just any human, either, but an individual giver whose care and thoughtfulness towards an individual receiver can be detected within the gift [58, p. 108]. These traces might be embedded at any point or points during the process of planning, choosing, preparing, revealing, exchanging, using, or reflecting on a gift – a process that involves acts of imagination in anticipating the receiver's reaction, takes place over time, and likely will be at least slightly different for each gifting occasion.

Gifts, including digital gifts, are not only relational during the time it takes to choose and exchange them. Each gift is also the focus of an ongoing process of memory and

evaluation, primarily by the receiver [53]. In other words, inalienability reveals that while a gifted object might be static, its status as a gift is an ongoing process of remembering or reassessing the inalienable connection between object and giver. In this sense, we connect inalienability to the view of gifting put forward by anthropologist Arjun Appadurai: 'Even if our own approach to things is conditioned necessarily by the view that things have no meanings apart from those that human transactions, attributions, and motivations endow them with... their meanings are inscribed in their forms, their uses, their trajectories. It is only through the analysis of these trajectories that we can interpret the human transactions and calculations that enliven things. ... it is the things-in-motion that illuminate their human and social context' [2, p. 5]. An object on its own is simply an object. A gifted, inalienable object is a focal point for tracking activity, exchange, and personal meaning. In fact, Nancy Munn argues that it is only by active gifting that objects attain personal value and become inalienable (Munn in [21, p. 45]), both in terms of Oceanian social power and in the secular, non-political definition of inalienability used in this paper. Longitudinal studies could also help to establish whether inalienable digital objects can exert the type of force on social structures that Weiner [57] has observed in the case of inalienable physical objects.

Of course, inalienability raises questions that cannot be immediately answered from the single perspective of comparing sharing with gifting. One is the question brought up in Taylor and Harper's case study [54] of how to treat conversation in terms of gifting. Of course, a recording, transcript, or record of a conversation is inalienable, but we believe that conversations differ from gifts in terms of what they are – the 'something' in 'of something to someone' [12, p. 414]. Recent research into personal communications involving effort (e.g. [20, 26]) will almost certainly contribute to that investigation. Also, treatments of meaning and value raised by the concept of inalienability (e.g. [18, 22, 35]), which are very relevant for an HCI and design audience, will be saved for another paper [3].

Designers and design researchers must do more than understand what gifting entails: they need to know how to design for and alter the personal and social impact of gifts. We hope to have contributed to that endeavour with the

[3] For a truly watertight case to be made for inalienability, we would need to test the comparability of the term as used in non-Western gift economies with gifting in market economies such as those of North America, Europe, and East Asia – a daunting task beyond the scope of this paper, and probably any paper destined for the CHI audience. For this reason, we hang our assertions on the brief nods to market economies in the anthropological texts cited here. We also did not consider it critical to our argument to examine the difference between gift and commodity (see e.g. [10]), including Mauss's connections to Marxism (see e.g. [30]), but a closer look might help inform our argument.

concept of inalienability as a means of understanding and discussing gifting. We also propose the following three strategies implied by our discussion:

Strategy 1: Differentiate between sharing and gifting. While the same *mechanisms* for sharing digital material can be used for gifting, gifting requires some degree of inalienability between the gift and its giver. It is outside the scope of this paper to explore sharing at the same level of detail as gifting (see the earlier discussion of Belk's contributions), but it is important to consider the specific potentials of gifting separately from the mechanisms by which the gifts are delivered or shared.

Strategy 2: Personalise the gifted object in terms of the giver. We have seen how gifts can be defined in part by the fact that they carry the 'spirit' of the giver or, more mundanely, that they remind the receiver of the giver. Also recall the importance of relationships rather than individual people, as gifts 'bear the particular personal meaning of the relationship in which they are transacted' [10, p. 133], and that receivers feel a closer relationship to their giver when the gift reflects the giver more than the receiver [1, 40]. Digital media objects are extraordinarily well suited to carrying traces of the giver in relation to that particular receiver, whether in the content they create, externally created content that they modify or compile, or through associated metadata.

Strategy 3: Highlight the effort the giver must go to in order to create, acquire, and/or give the gift. In line with the mainstream gifting literature, HCI research into gifting and personal communication has consistently indicated how much receivers appreciate, or even require, effort on the part of the giver in order to be satisfied with the positive gesture being offered to them [20, 29]. The inalienability of the gift may depend upon the giver for its connection, but this connection is utterly wasted if the receiver is unaware of it. Whether a digital gift is created by the giver or simply selected and sent, the gifting mechanism should in some way reveal the trouble the giver went to. Digital gifts provide enormous latitude for creative approaches to this principle when the gifted object does not have a set price, or any price at all.

8 CONCLUSION

In this paper we have identified a subtle but pervasive problem in the HCI and design literature: the lack of an agreed means of differentiating between sharing and gifting in a digital context. We reviewed our own community's literature to demonstrate the consequences of this problem and recent research projects that could benefit from a suitable term. We then gave an overview of the gifting literature, particularly gifting between individuals in some type of personal relationship, and explored a definition of gifting that

pointed towards our candidate term: inalienability. We uncovered the ways in which inalienability can address the unique and complex set of feelings and behaviours around gifting. We show how it can explain contradictory findings around physicality and personalisation as well as commonly recurring themes of effort that defy traditional HCI notions of efficiency. Our four case studies of seminal literature and recent design research projects illustrate further applications of inalienability to issues of interest to the HCI and design community. We hope that our three strategies for using inalienability will form a solid theoretical basis from which to discuss future design research.

We offer the term 'inalienability' as used in the gifting literature as a valuable concept, potentially a 'strong concept' [25]. Although it is not the primary aim of this paper to argue for inalienability's status as a strong concept, we believe that it meets the key criteria set out by Höök and Löwgren [25]. The term aptly describes the design elements that differentiate gifting from similar behaviours: namely, the elements that leave a legible imprint of the giver's effort and personalisation of the digital media object or hybrid experience being shared. Threats to inalienability can be seen in the case of digital conversations preserved in ways that might obscure their provenance [54] and in the broad dissemination of shared files [34], while choices intended to support inalienability can be seen in the replication of effort between gifting partners [52] and the use of audio to put gifting partners at the forefront of the museum visit (the GIFT app). In line with the requirements of a strong concept, inalienability describes an 'interactive behavior… unfolding over time' [25, p. 5]. We also see a powerful potential for inalienability to 'cut across' [25, p. 5] gifting to address other design concerns, such as value [38] and intimacy [55], where it may provide a common vocabulary and shared theoretical basis. Finally, we believe that we have demonstrated how inalienability might be applied across a number of different design domains [25, p 6]. Whether or not inalienability constitutes a strong concept would depend in part on its reception within the HCI community as a marker of how 'substantive' it is [25, p. 11]. At the very least, we have found it to be helpful to our understanding of the work that has gone before us, which has at times suffered from a lack of consistent usage of the terms 'sharing' and 'gifting'. We have also found it to be generative [25, p. 2] in the ideation processes we have undertaken since. We believe that the language of inalienability and the concept behind it will help to form a solid theoretical base for the design and research of digital gifting, and that it will provide a generative paradigm for investigating other areas of research in HCI and design.

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