

The Ethics of Forgetting in the Digital Age: Memory in Liu Cixin's "The Weight of Memories"

Tang, Yili

Abstract: *Digitalization and technological progress challenges the fundamental balance between the processes of remembering and forgetting. In his short story "The Weight of Memories," Liu Cixin tells a humanistic tale dealing with the future of human memory. Most of the story takes on the form of a mother conversing with her unborn child, who imparts her memories to the fetus via experimental technology. Drawing on elements impossible in reality, Liu offers an alternative for exploring the idea of "memory inheritance". He deliberately gears readers' attention to the dark side of the demise of forgetting via an unnatural narrative, and his short story thus explores the ethical implications of this significant defect in the digital age. Taking the process of forgetting in the digital age as its central concern, the article investigates the unnaturalness of the story and offers an ethical interpretation. In doing so, it argues that forgetting means reconstructing, both of which are about the past with reference to the present, and that it reflects the ethical and cognitive functions of our biological memory. This process is crucial in characters' identity formation and their ethical relations, and it is particularly important in maintaining ethical order in the digital age. In this sense, the ethics of forgetting lie in the awareness that by affecting human capabilities, technology will re-engineer humanity.*

Index Terms: *Forgetting, digital age, memory, Liu Cixin, "The Weight of Memories".*

1. INTRODUCTION

THE history of the past and the present is now being rewritten in bytes. With the help of widespread information technologies, the narratives we build about ourselves as individuals and as a collective are being reshaped, and will eventually change the approach we take to reflecting on the past, relating to current events, imagining the future, and constructing the self. Memory, an extremely complicated construct, operates between the opposing categories of the individual and the collective, the internal and the external, and the digital records of the hard drive and the brain. Since the beginning of time,

humans have devoted themselves to improving their capacity to remember, enhancing recall, and increasing retention of information. Because of global networks and digital technology, the effort required to remember has decreased. After four decades of increasing digitization, it seems that remembering has become the norm and forgetting the exception. Technology compensates for our natural ability to forget, imprinting the past like tattoos on our digital bodies. George Orwell famously remarked in his novel *Nineteen Eighty-Four* (1949) that "who controls the past controls the future" [1, p. 260]. It is no exaggeration to say that the "perfect remembering" of the digital age has led to the functional loss of memory, which changes both our past and our future. This has certainly not escaped writers' attention.

The protagonist in the Chinese science-fiction writer Liu Cixin's short story "The Weight of Memories"¹ is trapped in his mother's memory. The story takes the form of a mother conversing with her unborn child, imparting her memories via experimental technology. However, the unborn child finally ends his own life because of this memory inheritance. Liu has drawn attention to the dark side of the demise of forgetting via the form of an unnatural narrative, and his short story refers to the ethical implication of this fundamental defect in the digital age. He raises a series of pressing and vital questions: Are we able to forget our past and evolve? Whose memories do we have? Do technologies embody or displace our imagined "selves"? How do we construct and maintain the relationships between memory and technology?

To approach these questions, this article examines the current studies on forgetting, seeking to understand from several perspectives what forgetting means in the digital world. Because the term "digital memory" appears in a wide range of locations, it can align with many fields. Understanding the paradoxical relationship

Manuscript unconditionally accepted on September 21, 2020. Yili Tang is with School of International Studies, Zhejiang University, China. This work was supported in part by the China Post-doctoral Science Foundation (Grant Number: 2019M662098).

¹ First published in Chinese in *Sea of Dreams* (2015), a collection of Liu Cixin's short fiction. Translated by Liu Ken.

between forgetting and remembering in the digital age thus requires an interdisciplinary approach. However, the focus of this article is both broader and narrower, as it is concerned with the role of forgetting in literature and its ethical consequences in both the fictional and real worlds. It incorporates the perspectives of unnatural narrative theory, which studies narrative that violates physical laws, logical principles, or standard anthropomorphic limitations of knowledge by representing storytelling scenarios, narrators, characters, temporalities, or spaces that could not exist in the actual world², and ethical literary criticism formulated by Nie Zhenzhao, into the study of forgetting, and to the textual analysis of Liu's short story in particular. This approach has reciprocal benefits, as both fields will be enriched through their interaction in method and practice. This article argues that memory, as both a structural element and as a theme in Liu's fictional world, has become a means of re-evaluating humanity and subjectivity in the digital age. The undermining of biological forgetting confuses identities, which makes us vulnerable to making wrong choices and threatens our capacity to reason or act. Forgetting plays a crucial role in identity and human relations and is thus an ethical concern, particularly important in maintaining ethical order in the digital age.

2. FORGETTING IN THE DIGITAL AGE: AN ETHICAL INTERPRETATION

At both individual and collective levels, generally, memory refers to the process of encoding, storing, and retrieving information, and involves remembering and forgetting. Human memory is therefore often likened to an archive or storage space. However, critics such as Viktor Mayer-Schönberger are opposed to this metaphor and emphasize the malleability of memory [2, p. 119]. The plasticity of memory enables humans to evolve as they reflect on and adjust their values. Rather than being a deterministic biological computer, our brain, as Daniel Schacter suggests, constantly reconfigures our memory, which is a living, evolving construct [3, p. 134]. To build on an understanding of memory as a concept with its own history and diverse instrumentalizations, it is necessary to have a clear understanding that terminological and practical discussions of "forgetting" and "remembering" are not as straightforward as they may seem. Given the diverse phenomena at the intersection of the human, technological, social norm, and multidisciplinary approaches, the study of remembering and forgetting is part of a larger

system of interdisciplinary terms and concepts that are shaped by time and context. Regarding the history of the study of forgetting, Paul Ricoeur presents a well-constructed argument for the significance of forgetting and its socio-political impacts. In revealing the reciprocal relationship between remembering and forgetting, Ricoeur questions the role of forgetting as a part of the complex workings of memory: "Could forgetting then no longer be in every respect an enemy of memory, and could memory have to negotiate with forgetting, groping to find the right measure in its balance with forgetting?" [4, p. 413]. He calls for meditation on the necessity of forgetting as a condition for the possibility of remembering. Instead of being an enemy of memory, forgetting, as Ricoeur notes, "can be a resource for memory and history" [4, p. 284].

The importance of forgetting has attracted new attention in the digitally networked environment for numerous reasons. First, due to the immense capacity of digital technologies to store data, our ability to retrieve and save information has taken a quantum step forward, and our brain's capacity for learning and remembering has increased accordingly. Storing and retrieving information has become considerably less challenging in the past few decades. In contrast, forgetting has become difficult and costly. Second, forgetting, a normal and natural function of memory, contrasts with what is expected from digital technologies. The limits of human memory go against the demands of the digital age for perfect memory. However, denying forgetting, which is a fundamental behavioral mechanism, raises a series of issues that have attracted the attention of many scholars.

Viktor Mayer-Schönberger's *Delete: The Virtue of Forgetting in the Digital Age* ignited the discussion on the importance of forgetting in the digital age. His approach to this phenomenon is cultural and legal rather than technical. He puts on the table the significant yet under-addressed problem of the growing impossibility of getting free of the past. According to Mayer-Schönberger, persistent digital memory poses a series of challenges, such as "the imbalances in informational power, the decontextualization of memory, and its often-problematic reinterpretation, our cognitive bias to remember the exceptional irrespective of time, and the possibility of an unforgiving society" [2, p. 118]. He proposes that two important aspects of human life will be affected by the digitalization of memory on forgetting: power and time. The widespread use of

² See Jan Alber. "Unnatural Narrative," *the living handbook of narratology* [Online]. Available <https://www.lhn.uni-hamburg.de/node/104.html>.

digital remembering leads to a reduction of control or a loss of power over information that constricts “the freedom to shape one’s own identity” [5, p108]. This loss occurs because of three characteristics of digital memory: accessibility, durability, and comprehensiveness. In addition to power, digital memory also obviates time, which collapses history and thus denies us the opportunity to develop, learn, and evolve. Mayer-Schönberger therefore argues for the need to reintroduce our capacity to forget. Although the solution he proposes, the introduction of expiration dates on information, is not convincing, his contribution has set the stage for discussions on the importance of forgetting in the evolving digital age. Mayer-Schönberger’s study is strongly political, and it makes valuable contribution to the relationships between the state and citizens as well as privacy rights. One of his most important outcomes is the insight that human reasoning will be further endangered as the use of external memory through digital remembering is expanded, which may also lead to the loss of trust in human remembering [5, p. 118]. In this sense, Mayer-Schönberger’s attempt to address the ethical aspect of forgetting in the current digital age is admirable.

The books *The Ethics of Memory in a Digital Age: Interrogating the Right to be Forgotten and Remembering and Forgetting in the Digital Age* are largely responsible for the current interest in forgetting. The former documents current meditations on the “right to be forgotten” and the interplay between citizen rights about memory and the value of memory. The authors explore the framing of this right in ethical and legal terms, offering a comprehensive analysis of the problem of “the persistence of memory, the definition of identities (legal and social), and the problems arising for data management” [6, p. 3]. They mainly focus on the relationships between memory and identity and the problem of privacy in today’s digital age. The latter book includes writings from scholars from various disciplines, such as economics, psychology, sociology, philosophy, history, and IT. The preliminary assumption of this interdisciplinary project is that the digitalization of information has triggered the default switch of the fundamental importance of remembering and forgetting. One of its significant arguments is that forgetting and remembering are not simply opposites, “but rather complex, interdependent, and symbiotic processes shaped by a broad variety of contextual factors and incentives” [2, p. 8]. Alessia Ghezzi, Ângela Guimarães Pereira and Lucia Vesnić-Alujević underline the important role of forgetting in the creation of identities and human relations, which mainly assume that a person’s identity is a

function of his or her past behavior [2, p. 116]. The suggestions contained in these contributions reflect the fundamental insight that the complexity of forgetting, the speed of technological development, and the unpredictable impact of technology on individuals’ emotions and behavior call for a deep concern for humanity.

Against this background, the starting point of the approach that has led to this article is the assumption that forgetting in the digital age can be understood and ultimately governed in the human context, as it involves the ethical relationship or ethical order between man and man, man and society, and man and nature. To build on this assumption, it is important to note that the nature of remembering and forgetting is highly dynamic. That is, acts of remembering and forgetting are not only acts of retrieving and deleting information, but also of creation. During the process of forgetting and remembering, we recreate and thus rewrite information. Remembering is a two-step process. The first step is selecting and committing information to storage, and the second is recalling and analyzing that information. The goal in the first step of forgetting is to prioritize various information in memory. Then, information can be chosen to be ignored or deleted. In this sense, rather than simply being equated with deletion, forgetting encompasses the complex ability to differentiate between information and to choose which parts can be excluded and which can be transformed into meaningful content that is attributed new values. This highly complex selection procedure is also the process of making value judgments about what sorts of life are worth living. According to the perspective of ethical literary criticism and its attendant conceptual framework as formulated by Nie Zhenzhao, the process of forgetting is thus the process of making ethical choices [7, p. 26-34]. Ethical literary criticism considers ethical choices to be crucial actions by which humans pursue a social and ethical existence. According to Nie, the brain text is a type of text stored in the human brain, and which has a distinctive biological form. It mainly preserves cognition and perception as memory. To cope with a sea of information, the incorporeal and abstract consciousness is first preserved in the brain in the form of brain concepts, which are combined and modified under the guidance of certain ethical rules, resulting in the formation of a brain text [7, p. 30]. This procedure cannot occur without memory, and thus it includes the process of forgetting, in which a person collects, analyzes, deletes, and even modifies brain concepts. Understood in this sense, forgetting is part of the process of forming brain texts. Once formed, the brain text affects one’s ethical awareness, thinking, and ethical choices. In the process of making ethical choices, “humans

will be endowed with ethical consciousness and form the concept of good and evil, which are the result of the functioning of the brain text” [7, p. 33-34].

Furthermore, our choices determine our ethical identity. Identity and memory can codetermine one another: remembering and forgetting are constructive processes that influence the construction of identity and be influenced by it. Identity is “not merely a kind of label to distinguish a person in terms of social structures, but also “an ethical mark and title, such as that of husband, wife, father, mother, son, or daughter” [8, p. 106]. Seen in this light, identity lays a solid foundation for social order. Its formation is fluid as we adapt to a changing environment or context. Because of persistent digital footprints, digital memory intrudes into human relationships. The digital transformation of identity calls for us to be able to reinvent ourselves and reestablish our relationships with others. In this way, forgetting fulfils key and vital roles in the reformation of our relationship to the self, others, and the social order in today’s digital context. In light of this, forgetting fulfils a significant purpose beyond privacy or other legal and political rights. As an essential function for memory governance, forgetting is not the mechanical deletion of facts from past, but rather the reconstruction of the past based on the present, reflecting the ethical and cognitive functions of our current biological memory. Therefore, forgetting functions at an ethical level that is worth keeping in mind as we craft a path into our digital future, as Liu Cixin reveals in his short story.

3. *MEMORY INHERITANCE IN LIU CIXIN’S “THE WEIGHT OF MEMORIES”*

As we now proceed to textual analysis, it is worth noting that this article cannot encompass all aspects of the ethical implications of forgetting, nor can it provide a technical solution to the default of forgetting in the digital age. Arguably among the most significant contributions of this article is the insight that literature is the best form for conveying the ethics of forgetting in the digitally networked environment because of the human context in which its process takes place. In “The Weight of Memories,” Liu Cixin embeds the relevant cultural and ethical values of forgetting through fictionality and the defamiliarizing effects of unnatural narrative.

The story revolves around a conversation between a mother, her unborn child, and the neuroscientist Dr. Ying, who “studies how brains create thoughts and construct memories.” [9] The fetus can talk with his mother and Dr. Ying from

the womb about his mother’s memories, which in reality is humanly, physically, and logically impossible, as it involves such “unactualizable elements” as unnatural character, unnatural events, and unnatural mind. In his conceptual system, Jan Alber claims that “One of the most interesting things about fictional narratives is that they not only reproduce the empirical world around us; they also often contain unactualizable elements that would simply be impossible in the real world” [10, p. 3]. Such elements include unnatural narrators, unnatural characters, unnatural time, and unnatural space. He then classifies unnatural characters into five general categories: blends of humans and animals, dead characters, robot-like humans and human-like robots, metamorphoses and transforming figures, and multiple coexisting versions of the same character [10, p. 104-148]. The fetus in “The Weight of Memories” is a different type of unnatural character, as he exhibits extraordinary language skills and the talent of memory, which would be impossible in the real world. He recalls his mother’s past, thinks about the present, and is concerned about his own future. His formation of words and sentences are at odds with his fetal identity, although he is unable to use overly complex vocabulary such as “amniotic fluid” and “neuroscientist.” Referring to the knowledge of the real world, the abilities displayed by the fetus are obviously humanly impossible. As the conversation unfolds, readers are informed that their unnatural communication is achieved through a special machine created by Dr. Ying that allows them to communicate.

The fetus also displays the unnatural mind, “a presented consciousness that in its functions or realizations violates the rules governing the possible world it is part of in a way that resists naturalization or conventionalization” [11, p. 97]. Stefan Iversen examines the impossible mind to be that which “is biologically or logically impossible, such as a mindreading mind, a deceased mind, a radically metaleptic mind, or a mind running without the hardware that the human mind as we know it is nested in” [11, p. 104]. In “The Weight of Memories,” Liu presents a mind whose unnaturalness is prominently manifested in memory inheritance and mind reading. The fetus in this story demonstrates an unnatural ability to remember and read his mother’s thoughts.

Dr. Ying: Hello there!

Fetus: Hello? Um . . . I think you study brains?

Dr. Ying: That’s right. I’m a neuroscientist—that’s someone who studies how brains create thoughts and construct memories. A human brain possesses enormous information storage

capacity, with more neurons than there are stars in the Milky Way. But most of the brain's capacity seems unused. My specialty is studying the parts that lay fallow. We found that the parts of the brain we thought were blank actually hold a huge amount of information. Only recently did we discover that it is memories from our ancestors. Do you understand what I just said, child?

Fetus: I understand some of it. I know you've explained this to Mama many times. The parts she understands, I do, too.

Dr. Ying: In fact, memory inheritance is very common across different species. For example, many cognitive patterns we call "instincts"—such as a spider's knowledge of how to weave a web or a bee's understanding of how to construct a hive—are really just inherited memories...

Mother: Dr. Ying, that's too complicated for my baby. [9]

Dr. Ying's explanation of the working of memory and "memory inheritance" is too complicated for both the mother and the fetus to understand. The fetus nevertheless understands to the extent that his mother does. In this sense, the fetus not only inherits his mother's memory but also reads his mother's mind, so he knows what his mother understands and tells Dr. Ying her thoughts. The memories the fetus inherits include his mother's forgetting, which on the same level prevents her from ever forgetting. The technique of memory inheritance thus establishes external memory, which is durable and lasting, inhibiting forgetting and change. The fetus, possessing his mother's perfect memory, can therefore be regarded a product of digital technology that removes the human capacity to forget.

This raises the question of what would happen if we could not forget. In "The Weight of Memories," Dr. Ying reveals why she does not have her own baby with inherited memories:

We were baffled by the dormant nature of memory inheritance in humans. What was the point of such memories if they weren't used? Additional research revealed that they were akin to the appendix, an evolutionary vestige. The distant ancestors of modern humans clearly possessed inherited memories that were activated, but over time, such memories became suppressed. We couldn't explain why evolution would favor the loss of such an important advantage. But nature always has its reasons. There must be some danger that caused these memories to be shut off. [9]

Both Dr. Ying and the mother are aware of the potential downside of the demise of forgetting.

This flaw in the brain makes human existence bearable by reducing the burden of the past. In addition to his mother's memory and thoughts, the fetus has his own feelings and thoughts. His brain text is composed of both the mother's and his own brain texts, and it is caught up in memories and unable to leave the past behind. The fetus's own brain text includes only the fluids that surround him, his mother's heartbeat, and the faint reddish-orange glow from outside, yet his present circumstances play a significant role in determining what is remembered from his mother's memories rather than an objective rendering of past events. Both the fetus's brain text and the mother's biological memory are evolving, but the mother's past captured in the fetus's brain is frozen in time. Therefore, according to her recollections in the present, the day she left home was full of joy and happiness. However, according to the memory in the fetus's brain, the day his mother left the village was horrible. The mother's own memories are the product of remembering and forgetting, and her suffering is alleviated by the ability to see her past through the eyes of who she is in the present. This obviously clashes with the fetus's understanding, as he has no chance of escaping or erasing the traumatic elements of his mother's past.

Furthermore, the conflict between the mother's memories and the fetus's own brain text leads to misplaced ethical identities. In terms of the fetus's ethical identity, he is his mother's son. However, the mother reveals that she has participated in this memory inheritance experiment because she "wants to be born a second time." [9] Taking control over her information in the form of memory inheritance gives the mother an opportunity to define herself. As the process of identity formation becomes technically stored and further processed in her unborn child's brain, the question arises of whether the fetus is the son or the mother herself. If the experiment heightens the vulnerability of the mother's identity, helping her to alter her identity over time, then it accordingly changes their ethical identities when the mother tries to replicate herself by replicating memories. As a consequence, the collection of the mother's memories, which accompany consciousness and thinking, constitutes her identity in her unborn child's physical body. Although they realize that it is terrible to allow an unborn child to endure the burden of his mother's past and to confuse his identity, their choice to replicate the mother's memories leads to the fetus's death. After their conversation, the fetus chooses to end his life and tears off his umbilical cord. This ethical choice is the result of the conflict between his mother's memory and the fetus's interpretation of it, both of which are influenced by who the characters are in

the present. By using unnatural narrative, Liu constructs a playground in which to explore the effects of an inability to forget. He offers an alternative space for trying out the idea of “memory inheritance,” which is impossible in reality. In this way, the tragedy of the fetus’s death reveals the ethical implications of forgetting in today’s digital age and highlights its role in our humanity. Losing the process of forgetting would make humans remain tethered to the past and take away their ability to make sense of the world around them.

4. CONCLUSION

Digitalization and technological progress have led to a considerable shift in the fundamental balance between the processes of remembering and forgetting. By discussing the ethical implications of memory inheritance on human subjects and the significance of forgetting in shaping our digital future, Liu Cixin offers a vivid picture of what would happen if this balance were inverted. The memory inheritance experiment undermines the significant role of forgetting and thus threatens the fetus—the future of society—in his capacity to reason, learn, and evolve. The story ends in a bittersweet manner with the mother having a baby who has not inherited her memory and consequently is able to experience life with surprise and joy. This story implies that technology only facilitates the inverted balance between remembering and forgetting—it is humans who cause the demise of forgetting, and we should revive our capacity to forget. In this sense, the ethics of forgetting lies in the awareness that by affecting human capabilities, technology will re-engineer humanity. Thus, instead of letting technology form us, we should form technology.

REFERENCES

- [1] Orwell, George, *Nineteen Eighty-Four*, Peter Davison, ed. 20 vols., London: Secker & Warburg, 1986–1987, IX.
- [2] Thouvenin, Florent, Peter Hettich, Herbert Burkert and Urs Gasser, *Remembering and Forgetting in the Digital Age*, Switzerland: Springer International Publishing AG, 2018.
- [3] Schacter, Daniel L., *The Seven Sins of Memory: How the Mind Forgets and Remembers*, Boston: Houghton Mifflin, 2001.
- [4] Ricoeur, Paul, *Memory, History, Forgetting*, Chicago & London: The University of Chicago Press, 2004.
- [5] Mayer-Schönberger, Viktor, *Delete: The Virtue of Forgetting in the Digital Age*, Princeton: Princeton University, 2011.
- [6] Ghezzi, Alessia, Ângela Guimarães Pereira and Lucia Vesnić-Alujević, *The Ethics of Memory in a Digital Age: Interrogating the Right to Be Forgotten*, London: Palgrave Macmillan, 2014.
- [7] Nie, Zhenzhao, “The Forming Mechanism of Brain Text and Brain Concept in Theory of Ethical Literary Criticism,” *Foreign Literature Studies*, vol. 5, pp. 26-34, 2017.
- [8] Shang, Biwu, “The Unbearable Lightness of Growth: Reading Ethical Consciousness and Ethical Selection in Ian McEwan’s *The Cement Garden*,” *Arcadia: International Journal of Literary Culture*, vol. 50, no. 1, pp. 102-117, 2015.
- [9] Liu, Cixin, “The Weight of Memories,” Ken Liu, trans. 2015 [Online]. Available <https://www.tor.com/2016/08/17/the-weight-of-memories/>
- [10] Alber, Jan, *Unnatural Narrative: Impossible Worlds in Fiction and Drama*, Lincoln: University of Nebraska Press, 2016.
- [11] Iversen, Stefan, “Unnatural Minds,” in *A Poetics of Unnatural Narrative*, Jan Alber, Henrik Skov Nielsen and Brian Richardson, ed. Columbus: The Ohio State University Press, pp. 94-112, 2013.