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Technologies, Narratives, and Practical Wisdom

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Abstract

Recent digital and computational developments dramatically changed overnight the pace in which new technologies are integrated into the lives of billions of people and have changed how people use their time and relate to each other and their physical environment. This paper explores how some concepts of Ricoeur's practical philosophy can offer significant contributions to the ethical discussion of new technologies. I suggest that a narrative approach to the ethical debates on technologies helps to put them in context and to analyze them in a dialectical manner concerning the natural and human processes that will be impacted by them. I then explore how the narrative approach leads to an ethical proposal based on Ricoeur's critical phronesis (practical wisdom). While narratives work as a propaedeutic to ethics, a narrative approach to critical phronesis unveils and highlights some of its conceptual attributes that make it uniquely suited to tackle ethical issues related to technologies.

Keywords: Practical Wisdom, Phronesis, Philosophy of Technology, Narrative Theory, Ethics of Technology.

Résumé

Les développements récents du numérique et de l'informatique ont considérablement changé du jour au lendemain le rythme d'intégration des nouvelles technologies dans les vies de milliards de personnes, de même qu'elles ont changé la manière dont les gens usent de leur temps, entrent en relation avec les autres et avec leur environnement physique. Cet article explore la façon dont certains concepts de la philosophie pratique de Ricoeur peuvent offrir des contributions significatives à la discussion éthique concernant les nouvelles technologies. Je suggère l'idée selon laquelle une approche narrative des débats éthiques sur les technologies aide à les contextualiser et à les analyser de manière dialectique en ce qui concerne les processus naturels et humains qui seront impactés par elles. J'explore ensuite la façon dont l'approche narrative conduit à une proposition éthique fondée sur la phronésis critique de Ricoeur (sagesse pratique). Tandis que les récits fonctionnent comme une propédeutique à l'éthique, une approche narrative de la phronésis critique dévoile et éclaire certaines propriétés conceptuelles qui la rendent seule à même de s'attaquer à des questions éthiques concernant les technologies.

Mots-clés: sagesse pratique, phronésis, philosophie de la technologie, théorie narrative, éthique de la technologie.

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Technologies, Narratives, and Practical Wisdom

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There is an increasing urgency for an ethical debate around the transformations that new technologies have brought to our societies. Genetic editing techniques, new machine learning algorithms, and wireless communication technologies with speeds hundreds of times faster than today's have the potential to affect almost every aspect of our institutions, social relations, and the environment. These technologies will impact fundamental biological and social issues such as the beginning and end of life, labor and economic markets, interpersonal relationships, and political regimes. This scenario requires a renewed effort for a systematic ethical debate on technology issues. This paper explores how some concepts of Ricœur's philosophy can offer significant contributions to this ethical discussion of new technologies.

David Kaplan observed in "Paul Ricœur and the Philosophy of Technology" that Ricœur did not turn his attention to the "empirical dimensions of technology." However, Kaplan suggests that Ricœur's philosophy can be extremely relevant to an empirical approach to technology studies that "understands it hermeneutically and contextually: technology must be interpreted against a cultural horizon of meaning, like any other social reality."¹

Kaplan then highlights three aspects of Ricœur's philosophy that provide fruitful conceptual frameworks when considering technologies:

[Ricœur's] idea of a hermeneutic arc offers a way of mediating between the technical and social dimensions of things; his narrative theory helps to show how technology figures into the stories of our lives; and his moral-political philosophy provides a framework for evaluating the rightness and appropriateness of technology.²

I will explore these three dimensions through the lens of a narrative approach founded on a hermeneutical understanding of technologies that leads to an ethical inquiry based on the concept of practical wisdom. Among other contributions, a hermeneutic approach to technology issues places the technical aspects of new technologies in relation to personal and social meanings. This contribution of the hermeneutic approach is particularly urgent as the gap between what can be done with digital artifacts and the ability of societies to define criteria and ethical meanings for such artifacts. As Kaplan suggests, it is possible to apply the Ricœurian hermeneutics to understand how "the technical influences the social, and the social influences the technical."³

This narrative approach is framed by Ricœur's notion of a hermeneutic arc that mediates between the technical and social, between what he calls explanation and understanding.⁴ Such an approach is particularly productive since it is not uncommon for discussions of technology to be isolated from the contexts in which such technologies are and will be used in everyday life. Technology development processes tend to take into account internal aspects of technology such as durability, efficiency, material resilience, and response time, but rarely consider ethical concerns of how such technologies will affect the environments in which they will be used.

Even where the technology profession find ethics germane, ethical education tends to focus on some isolated disciplines that concentrate on deontological aspects through a set of general principles that serve as the basis for ethical decisions. This approach is essential and in many cases well structured, as in the case of the Code of Ethics and Professional Conduct of the Association for Computing Machinery. However, as Burton, Goldsmith, and Mattei point out,

there is a temptation to teach solely through the transmission of facts, rather than encouraging discussion and dissent. This approach, which many undergraduates have seen, can condition them to interpret what they learn in terms of an authority-based view of 'truth' that, in turn, leaves them unequipped to reason about situations involving no single correct answer or think cogently about ethical trade-offs.⁵

Moreover, a large number of ethical discussions about current technologies take place after the fact, when technologies have already caused harmful consequences for society or the environment. Technical feasibility is detached from considerations of the possible ways in which technologies will impact the meanings of our worldly experiences.

In the first part of this article, I will broaden Kaplan's second point and suggest that a narrative approach to the ethical discussion of technologies helps to put them in context and to analyze them in a dialectical manner with regard to the natural and human processes that will be impacted by them. Ricœur's suggestion that narratives operate as "ethical laboratories" seems especially fruitful for the development of an ethical sensibility that evaluates new technologies not only based on their technical attributes but also in light of the possible ethical consequences of such technologies. In this sense, fictional narratives, such as science-fiction ones, can play a relevant role in shaping this ethical sensitivity to technological aspects through an imaginative exploration of the possible consequences and meanings that new technologies will bring to society.

In the second part of the text, I will explore how the narrative approach suggested above leads to an ethical proposal based on Ricœur's critical phronesis. While narratives work as a propaedeutics to ethics, a narrative approach to critical phronesis unveils and highlights some of its conceptual attributes that make it perfectly suited to tackle ethical issues related to technologies. This section seeks to develop and deepen Kaplan's emphasis on the relevance to the evaluation of technology of Ricœur's moral-political philosophy.

Narratives as Ethical Laboratories

With the spread of high-throughput portable computing devices, the installation of efficient wireless communication networks in vast areas of developed countries, and the possibility of remote distribution of digital applications and content, technological advances reach a massive number of people almost instantly.

These three developments dramatically changed the speed in which new technologies are integrated into the lives of billions of people overnight, and brought about changes in the way people use their time, relate to each other, and their physical environment. The psychological, social, political, economic, and environmental consequences are manifold and have become increasingly debated by society and academia. Luciano Floridi,⁶ for instance, proposes the concept

of the Infosphere to describe how the human world is being dramatically affected by digital and computational artifacts. Recently we have seen more clearly in the news the ethical dilemmas generated by the ubiquitous use of technological artifacts such as social networks, search engines, and virtual marketplaces.

Among the dimensions that need to be considered with these new digital technologies are concerns about ethical criteria that will be established or adjusted to account for the changes prompted by them. The need for an ethical reflection that takes into account both the specific aspects of technologies from the design phase to distribution and the human and ecological contexts that will be affected by technologies has become evident. David Kaplan argues, “We should examine how things are made, how they are used, and how they function in relation to broader cultural practices.”⁷ He contends that “philosophers of technology [should] examine the various ways that our technologies (plural) form the background, context, and medium for our lives, shaping our culture and the environment, altering patterns of human activity, and influencing who we are and how we live.”⁸

On the basis of these suggestions, I would like to highlight three main ideas that constitute an important background for our discussion. First, the use of the plural form of technologies stresses the attention to particular aspects of different artifacts. A high-level discussion of “technology” as a whole as proposed in the early stages of the development of the philosophy of technology by thinkers such as Heidegger and Marcuse is necessary, but it has to be complemented by a deeper understanding of the specificities of each technological innovation. The ethical implications of coffee machines are different from a digital home assistant connected instantly to an artificial intelligence engine built on machine learning algorithms located in a server hundreds or thousands of miles away, even though they both fall under the broader category of technology in most philosophical criteria applied to define this term, and sit next to each other on the countertop of my kitchen. Second, there is a need to contextualize these technologies within cultural and social phenomena, current and future. And third, we must recognize the hermeneutical circle between the production and use of new technologies and the modification of the way we are, live, and create new technologies. This third point’s emphasis on the way technology may affect the nature of human beings remains an implicit horizon of my argument. I concentrate on the first two points and their attention to how technology must be contextualized within specific cultural and social locations. My claim is that a narrative approach to ethics helps create a framework for evaluation of technological innovation and application within these concrete domains.

In *Phronesis, Poetics, and Moral Creativity*, John Wall⁹ advocated for an approximation between practical wisdom and poiesis that takes into account the poetic – the creative – potential of ethical decisions. I agree with Wall’s central argument, but I believe it can be extended not only to emphasize the poetic dimension of ethics, but also the ethical dimension of poetics, which I apply here to technological innovation. The development of a social networking recommendation algorithm, for example, needs to take into account the possible ethical implications of using such algorithms. It is urgent that the creators of new technologies develop an ethical sensibility along with their technical and analytical skills.

To this end, an isolated approach to technological artifacts is insufficient. An ethical reflection on technologies should ideally place them in the possible contexts in which they will be

used. Taking technologies as quasi-characters of historical and fictional narratives helps us to explore and enhance the narrative understanding of the world and the possible meanings that certain computational and digital artifacts and architectures will bring to people and communities.

For example, it may become possible to create technical means to broadcast live video streams to millions of social network users directly. Many of the so-called fifth generation of mobile networks (5G) that underlies this functionality will also save patients who will benefit from remote open heart surgeries. Nevertheless, the consideration of a possible scenario in which a serial killer broadcasts a terrible crime and leaves a digital trace of hundreds of copies needs to be seriously considered during the development of such functionality.

It is precisely in this sense that a reflection on the potential of narratives to develop an ethical sensibility becomes evident. The ethical implications of narratives have been suggested and explored by several contemporary philosophers. Martha Nussbaum,¹⁰ for instance, highlights the singularizing potential of narratives to ethics. She contends that narratives propose an expansion of our understanding beyond a formal and deontological approach to include the “exemplary” persuasiveness of literary and oral stories.

Adelaide Fins investigates the role of narratives and imagination to ethics in the works of Ricœur and Nussbaum. She highlights that Nussbaum’s attention to narrative imagination, akin to Ricœur’s concept of solitudine, is focused on the recognition of fragile and vulnerable narratives that needs to be taken into account when considering ethical decisions: “[Nussbaum] invites us to think about the complexity of reality, not with reference to abstractions, but through attention to ordinary and vulnerable life [...]”¹¹ Narratives have the potential, then, to connect new technology developers not only to abstract moral norms but to the lives of future users of those technologies through the imaginative role of fictional narratives including those whose representativeness as participants of a technological society may be more fragile and vulnerable.

Richard Kearney¹² also explores how stories have been shaping different cultural traditions of ethical understandings at different levels from individual attention to the otherness of strangers and the calling for mutual recognition to the formation of large-scale communal entities.

In *Time and Narrative*, Ricœur questions the hypothetical ethical neutrality of narratives, which he claims attempt to suppress “one of the oldest functions of art, that it is an ethical laboratory where the artist pursues through the mode of fiction experimentation with values.”¹³ Later, Ricœur points out that narratives are “that extraordinary laboratory of the probable constituted by the paradigms of emplotment.”¹⁴ These possible paradigms of emplotment are always linked to possible ethical implications that vary according to plot schemata. In *Oneself as Another*, Ricœur extends the idea of the narrative laboratory, stating: “Literature is a vast laboratory in which we experiment with estimates, evaluations, and judgments of approval and condemnation through which narrativity serves as a propaedeutic to ethics.”¹⁵ We may also point to the constitutive implication to an ethical sensibility of narrative’s threefold mimesis. The movement of the broadening of intrinsic tensions of competing horizons of meanings opened by configured narratives transforms readers from the prefigured to the refigured levels of hermeneutical possibilities.

From the idea of imaginative variations derived from Husser’s philosophy in the context of a reproductive imagination, Ricœur expands the reach of the concept and emphasizes the

potential for applying such variations to productive imagination. This imaginative process offers a redescription of the world and opens windows to explore other ways in which technologies create diverse forms of being-in-the-world: "Through fiction and through poetry new ways of being-in-the-world are opened up in the midst of reality."¹⁶

By linking this function of narratives to the ethical implications of technologies, we are led to the genre of science fiction that performs precisely this kind of imaginative variations by placing technologies in different contexts and exploring possible personal, interpersonal, and social implications that certain technological advances may create. Eileen Botting, for instance, explores how Mary Shelley's *Frankenstein* is the "prototype for all speculative and science fiction on the ethics of the artificial creation, modification, and transformation of human life..."¹⁷

When assessing, though, this immediate association between fictional narratives and science fiction in the context of new technologies, some critical considerations need to be offered. First, I do not mean to say that the simple application of imaginative variation will lead to a good ethical decision. Creative imagination is not a sufficient condition for ethical decisions, but I suggest that it is a necessary one.

Second, the definition of the science fiction genre is complex and involves a definitional controversy that goes beyond the context of this work. Debate continues whether the genre necessarily involves something that does not yet exist as a technology already implemented or available to use. For our purposes, regardless of the literary studies response to the genre classification issue, any work that discusses how a real or possible technological artifact affects or may affect our being-in-the-world horizon brings considerations that are potentially relevant to an ethical perspective.

Another relevant factor cautioning against a narrower approach based solely in science fiction is that other fictional and historical genres not directly involving technological artifacts can provide essential analogies to reflect on technology-related problems. Following Ricœur's basic proposal, narratives often function as a propaedeutic for ethical thinking because they con-figure variations in meaning and forms of being-in-the-world that will be affected and affect the way technologies are used.

I want to explore the fluidity between the "possible" and the real through fictional narratives even if a given work does not make it to the science fiction shelf due to certain taxonomic criteria. Even though works in science fiction seem a good starting point for this discussion, it needs to remain open to any fictional narrative that explores the "possible" of technological innovations. In his article on the potential of prospective narratives to disrupt and propose new possibilities for political identities, George Taylor¹⁸ explores the dialectics between the real and the possible mediated through Ricœur's development of the concept of figuration: "[figuration] intertwines the 'real' and the 'unreal.' The 'real' is not a static category, and fiction can offer us insight into the 'real.'" This dynamicity of the "real" investigated through the lens of the fictional "possible" is being attested every day by how technologies operate the conversion of the "possible" into the "real."

As a final point in addressing science fiction, I want to consider the fact that Ricœur distances himself from a particular use of science fiction scenarios when discussing the problems associated with narrative identity in relation to proposals by Derek Parfit.¹⁹ It seems to me that the

issue here is closely linked to the context of the application to the issue of personal identity and not to the science fiction genre itself. On the one hand, this is not a critique of the use of the genre as a tool of imaginative variations, but on the other, in his critique Ricœur points out that some proposed science fiction scenarios may not be adequate to address some philosophical problems. Specifically, in the debate with Parfit on personal identity, Ricœur wonders whether the transformation of the human bodily condition to act and suffer into a mere contingent variable does not endanger the possibility of ethical imputability. Violation of this existential condition carries with it the risk that both the ethical principles themselves and the moral laws will become empty given the impossibility of imputation to a flesh and blood person,²⁰ which is of essential importance to our argument. Parfit's puzzling cases reduce personal identity to sameness through the separation of body and mind that does not take into account that the body is not just any body, but my own body (*corps propre*).

Turning from the contributions of narrative at a more theoretical level to the more practical, the application of fictional narratives to arouse ethical sensibility of technological issues has been explored by some researchers in higher education institutions in the United States for some years. Let me share three of such initiatives to better illustrate their practical potential.

First, Emanuelle Burton, Judy Goldsmith, and Nicholas Mattei have for several years taught courses on Science Fiction and Computer Ethics. They argue that "fictional [narratives] offer students a way to engage with ethical questions that help them cultivate their capacity for moral imagination; science fiction, in particular, can make the ethical stakes of blue-sky projects vivid, pressing, and immediate."²¹

Second, in some cases of seminal technologies such as nanotechnologies, imaginative exploration is even more important given the absence of already widely distributed devices. Ethical discussions must take place before technologies are integrated into the lives of people and societies. Berne and Schummer propose the use of science fiction for engineering studies: "Through science fiction, engineering students are given opportunities to move beyond ideas of present reality material into the domains of the imagined future, where they can work with moral questions of our future with nanotechnology in creative and active ways."²²

Third, a group of funding institutions led by the Mozilla Foundation created a grant offered to promising approaches to embedding ethics into undergraduate computer science education.²³ One of the recipient projects, led by Stacy Doore, was conceived based on the assumption that using narratives for ethical reflection in computer science courses will enhance the perception of emergent technology creators to the possible social impacts of their activities at every stage of the design process. Ricœur's idea of "ethical laboratories" was highlighted and considered by the project evaluators as the fundamental characteristic of this project.

These practical applications of narratives in the creation of an ethical sensibility for technological issues can lead us back to a theoretical reflection on the relationship between narrativity and ethics in Ricœur's work. Like Peter Kemp,²⁴ I understand that a narrative approach is fundamental to the development of some concepts of Ricœur's ethics. However, also like Kemp, I recognize that for Ricœur, his aim is not to propose a narrative ethics. In his response to the excellent volume edited by Morny Joy on *Paul Ricœur and Narrative*,²⁵ Ricœur makes it clear that imagination and memory in the form of metaphors and narratives can complement an ethical proposition, but they cannot replace the whole panoply of an ethics that, as we know, involves the

complete arc of his “Little Ethics” from the desire for the good life, through the test of deontological norms, to practical wisdom as critical phronesis.

This comment prompts a transition to the paper’s final section, where I consider the relationship between narrativity and ethics in the context of Ricœur’s practical philosophy and how this relationship applies specifically to technologies. To do so, I will focus on the concept of practical wisdom that epitomizes Ricœur’s “Little Ethics” and has many clear conceptual connections to a narrative approach to ethics.

Practical Wisdom

A consistent and productive way of transitioning our discussion from the exploration of narratives as a propaedeutics to ethics towards practical wisdom would require a consideration of the concepts of narrative understanding and poetic universals. Since a comprehensive discussion of these concepts would require much more space than this paper allows, let me simply offer a couple of key remarks on this conceptual network that may at least support the plausibility of the suggestion.

First, the concept of “narrative understanding,” used 114 times by Ricœur in his texts translated into English,²⁶ takes on a vital role in the transition from the theory of narrative to the theory of action and then to a moral theory. In “Life in Quest of Narrative,” Ricœur says that narratives develop a sort of “understanding that can be termed narrative understanding and which is much closer to the practical wisdom of moral judgment than to science.”²⁷ Within the Aristotelian framework discussed by Ricœur, narrative understanding bridges the epistemological gap between universal ethical values and singular stories told through the vast and complex relations between events, actions, motives, reasons, intentions, and so on.

Similarly, the concept of poetic universals suggested by Aristotle and explored by Ricœur in *Time and Narrative, I* is rather different from the universals of logical and theoretical thought. The kind of universality implied by narratives is that of a universality tied to the sequence of actions that, as Ricœur points out, is also linked to practical wisdom.

The kind of universality that a plot calls for derives from its ordering, which brings about its completeness and its wholeness. The universals that a plot engenders are not Platonic ideas. They are universals related to practical wisdom, hence to ethics and politics. A plot engenders such universals when the structure of its action rests on the connections internal to the action and not on external accidents.²⁸

Given the immense interpretive possibilities evoked by this citation, I would like to highlight just three aspects that seem fundamental for constructing the bridge I am proposing between narrativity and practical wisdom, and their applicability to the underlying contexts of technologies. These arguments go beyond Ricœur’s explicit statements and offer my own elaboration of Ricœur’s remark.

The first claim regards the connection of ethical principles to thought experiments represented as poetic universals in narrative plots. This connection contains a characteristic element of phronesis that translates universal principles to particular ways of acting. The second

claim is that the understanding of phronetic deliberation can be significantly enhanced by a narrative approach. The third claim is that by doing so we are invited to explore the intrinsic plurivocality of practical wisdom actualized in the form of the public debate. These three dimensions will structure in turn the final three sections of this last part of the paper. I will explore each of these aspects in relation to their applicability to technological issues.

Universals, Poetic Universals, and Particulars

Practical wisdom mediates principles and particulars. One of its basic characteristics is its instantiation or application of universal principles to particular situations. In the Ricœurian ethics these principles are linked to the deontological test derived from the Kantian tradition which has as its fundamental objective respect for others. Thus, the possibilities for action pass through the test of respect for the other and must then be chosen and applied to the particular context of the ethical dilemma in question.

Narratives through plots models or schemas operate imaginative variations in the possible ways in which ethical principles can turn into particular sequences of action. However, these action schemata maintain a trait of universality that allows us to speak of poetic universals. They allow a level of abstraction that lies in between a general principle applicable to any action and levels of poetic realization of such principles that are already within a contextual framework of action, and thus closer to potential future particular situations of aporias that require phronetic deliberation.

Richard Kearney²⁹ comments on the relationship between narrative understanding and the practical wisdom of moral judgment, noting that narratives link some aspects of human action to the ideal of a fulfilled or happy life. He recalls that when the Greeks, for example, explain courageous actions, they told stories about Achilles; when they speak about daring, they told about the feats of Prometheus. Finally, he talks about how these “lessons of narrative” constitute the poetic universals of which we speak.

In this sense, fictional technology narratives create imaginative variations that offer schemas of action that are between ethical universals and the contexts in which certain technological artifacts will affect our way of being in the world. By expanding the spectrum of ethical sensibilities, such poetic universals enable the audience to engage in deeper and denser phronetic deliberation, because they point to possible effects that the creation or use of a given technology will have. Such deliberation also allows us proactively to make changes to the technology artifact itself or to the infrastructure that supports it so that possible negative effects are minimized.

Thus, the development of a particular wireless communication technology that enables instant communication between one person and millions of others should take into account possible narratives in which this feature is used to publish real scenes of violence that will have several negative effects on the lives of victims and possibly nurture ideologies of hatred and terror. Fictional narratives occupy this space of possible meanings between the universal of not disrespecting the other’s life and the use of communication technologies. Such imaginative variations have become part of the prefigured understanding of deliberators who will have to decide on the use and development of a particular technology that involves wireless

communication. They enhance the understanding of meanings, consequences and perspectives of the passage from universal principles to the particulars of a given ethical decision.

In such ways poetic universals foster good phronetic deliberation and explains one dimension of Ricœur's suggestion that fictional narratives are a propaedeutic for ethical deliberation in the context of a critical phronesis. The dialectic between universals and particulars mediated by the poetic universals proposed by narratives is a fundamental characteristic of practical wisdom, which operates precisely in the area of attention to the singular characteristics of a specific narrative upon which it is based. This characteristic of phronetic thought is a key to properly explore the implications of new technologies in their application contexts, as well as to move the focus from a general category to the multiple and fast-changing forms of different technological artifacts, of technologies in the plural.

In *Critique and Conviction*, Ricœur relates the idea of hermeneutic application to phronesis when discussing the importance of practical wisdom in his "Little Ethics": "What is it to solve an entirely novel ethical-practical problem? – this is the problem of practical wisdom, which I connect to the hermeneutics of 'application' under the aegis of Aristotelian phronesis."³⁰ Ricœur's attention is turned toward hard cases in the spheres of law, medicine, or everyday life, but his remark is a fabulous indication of the affinity between phronesis and the ethical issues associated with new technologies. Technological innovations create completely unheard-of scenarios that require phronetic deliberation applying principles and rules to particular situations through ethical invention.

One can think about the effect mobile devices have on communications within small communities, such as households, as an example of how the application of a certain ethical value needs to be reinvented when placed in new technological contexts. The suggestive title of Sherry Turkle's book,³¹ *Alone Together*, alludes to this phenomenon of isolation in the virtual world that affects interpersonal relationships in the non-virtual world. Decisions and deliberations that need to be made to promote or maintain communication within a household are quite new in comparison to similar circumstances just a few decades ago when mobile devices did not exist.

Even if caring for the problems of other members in a community is recognized as a value and various historical and fictional narratives show the possible impacts of mobile isolation, there is still a need for new ethical creation. Deliberators should propose a prospective narrative for such a household that applies the universal principles and the poetic universals to that particular circumstance that must take into account the peculiarities of each participant in the ethical context. This is where phronetic deliberation completes its arc and finds the particulars in situation.

Deliberation as a Dense Narrative

The second aspect of the relationship between narratives and practical wisdom is the narrative nature of deliberation. Since Aristotle, practical wisdom is essentially linked to the deliberation process. The primary fruit of practical wisdom is a good deliberation. I argue that a narrative approach significantly illuminates the proper understanding of the deliberative process. To deliberate well is to create a concordant discordance³² composed at once of a dense retrospective narrative that takes into account as many events and connections as possible that led to the ethical

dilemma, and that is combined with a prospective narrative through the use of phronetic imagination that is constrained by the attention to the rights of others.

Although I do not develop the point, any framework for considering Ricoeur's path of critical practical wisdom should encompass all three moments of his "Little Ethics." I believe that the moment of the deontological test can be thought of as a set of limits of what the prospective narrative should not and cannot narrate, that is, evil and violence that destroy the possibility of others to be.

It is necessary at this point to provide a few clarifications of the conceptual background I am using here, which I explore in deeper detail elsewhere.³³ I would like to suggest a model in which we assume that an ethical decision always takes place at a hypothetical moment in time at the end of a phronetical deliberation. At this point something is still senseless and there is a need for deliberating the next steps that will lead the phronetical narrative to a desired ethical situation in the future. We call the narrative threads before the time of deliberation pre-deliberation narratives or retrospective narratives. They involve actions, motives, values, incidents, facts, and interpretations considered by deliberators to undertake the decision. The decision itself can be seen as a post-deliberation narrative, or prospective narrative. The process of phronetic decision is therefore the weaving of an encompassing narrative that mediates the tensions of retrospective narratives with a concordant discordant prospective narrative. This overarching emplotment is what I call deliberative narrative.

The density of a deliberative narrative contains the set of different narrative threads that represent diverse configurations of the pre-deliberation narratives and post-deliberation narratives. In terms of the retrospective narratives, the narrative density is the sum of voices and points of view that are entangled in the narrative. The more they are considered and coherently correlated, the denser the retrospective narrative tends to become. Consideration of the multiple threads of the phronetical narrative and determination of its touch points demand a multidimensional competence that is typical of the phronetical intelligence. I will return to this aspect of narrative density in my third point below that discusses the intrinsic plurality of critical phronesis and its repercussions for decisions related to new technologies.

But the narrative density is also related to the prospective narrative. Although only one or a few threads of actions and events may be suggested by the prospective narrative represented by the decision, all possible prospective narratives considered in the process represent the density of imaginative variations that led to the decision. It is specifically at this point that fictional narratives play an essential role in configuring deliberative narratives with higher density.

Each plot schema suggested by fictional narratives can be integrated into one's consideration of the best prospective narrative to expand the deliberative reach toward as many scenarios as possible and take into account the multiplicity of ways in which technologies will affect others in diverse contexts within a broad spectrum of evaluative possibilities. Hannah Arendt talks about this propaedeutic role of narratives through the various standpoints that we can take as a reference for the ethical decision: "The more people's standpoints, and the better I can imagine how I would think and feel if I were in their place, the stronger will be my capacity for representative thinking."³⁴

One could also approach this augmentation of the density of deliberative narrative through Ricœur's hermeneutic analysis of the triple mimesis. In each cycle from prefiguration to refiguration through a configured narrative, the hermeneutical horizon of the deliberator is enhanced. The deliberator expands his or her horizon of possible meanings through a new tension created by configured narratives, fictional or historical. Such an enriched horizon will play a critical role when considering the best possible prospective narrative.

An exploration through imaginative variations proposed by narratives of how semi-automaton robots may impact jobs, household routines, care of children and elderly people, laws, political systems, warfare, hazardous occupations, and so on are important contributions for a denser deliberative narrative around why and how to deploy these types of technologies. This exploration enables deliberators to consider a much denser prospective narrative that takes into account more potential consequences of a given ethical decision related to a given semi-automaton robot toy. It prompts new concerns that need to be explored from different disciplinary angles and will lead to the public debate of which I talk next.

When phronetic deliberation is considered from the angle of narrativity, Arendt's representative thinking is akin to a denser deliberative narrative. By thinking and feeling through fictional and historical narratives, one is able to augment the threads and voices represented in the deliberative narrative. Such denser narrative is a fundamental step toward truly respecting others in their diverse needs and values, as the final phronetic narrative is a product requiring the participation of diverse voices, not the work of a sole deliberator, as I will emphasize in the final section. Whereas a denser narrative enhances the deliberative process through an enlarged exploration of the possibilities of meaning, Ricœur's critical aspect of practical wisdom functions as a catalyst for these narrative threads by placing them critically in a dialectical relationship. As insightfully suggested by Jean-Luc Amalric in the revision of this text, this aspect of practical wisdom appears in the critique of ideologies and utopias created around new technologies. Are some technologies the result of a valid Utopian project, or just manipulative ideologies guided by commercial interests? This critique is another point where Ricœur's critical phronesis becomes more relevant when considered from a narrative approach.

While I have already discussed the role of imaginative variation in bringing new and different contexts to bear on phronetic deliberation, I want to close this section by turning to the role of imagination in the process of phronetic judgment itself. The prospective narrative is the result of a novelty brought to light by the imaginative variations of the deliberators. The passage from the *a-poria* that leads to the impasse of ethical action to the *eu-poria* of good deliberation is the result of the imagination of new action schemata that address the particularity of the situation, respecting others and deviating as little as possible from the ethical principles taken as its basis. In his book, *Les puissances de l'imagination*, Jean-Philippe Pierron argues for something very close to this connection between imagination and practical wisdom. He investigates how imagination assists in the configuration of practical reason: "To this end, we will focus on the innovation brought about by the creativity of the ethical imagination in human action."³⁵

Ricœur pays special attention to the limitations of exclusively logical-rational processes taken as the sole source of solution to ethical questions. Although they are a necessary condition, a mandatory step in the development of ethical problems, they run into the "tragic action"³⁶ that requires new and imaginative solutions to seemingly insoluble ethical dilemmas taken strictly from

a logical deductive framework. Tragic action demands a poetic answer that transcends the aporia of the logical impasse through the imaginative dimension of practical wisdom.

To conclude this brief discussion of the contributions of imagination to phronetic deliberation, I want to raise one last point that relates the two aspects of practical wisdom that I have highlighted so far – the dialectic between particulars and universals and the deliberative narrative – through the mediation of imagination. In a dialogue with the work of Arendt, Pierron explores the role of imagination in the ability to move from examples to general ethical concepts. Arendt attributes to imagination the crucial role of recognizing “general cases” from examples, from particular situations. The example “is no longer a case subsumed under a rule (to place the particular under the universal) but what reveals the rule – opens a vast field for the practical function of the imagination.”³⁷ Each example taken from real or fictional narratives allows for an imaginative process of abstraction that gathers general traces that, in turn, feed the deliberative imagination in choosing the best decisions, that is, prospective narratives that meet ethical principles and take into account the lessons learned from poetic universals.

Jean-Luc Amalric explores these two perspectives of imagination in an article on narrative identity. He suggests two functions of imagination that provide a consistent model for the role I have been emphasizing of imagination in both the representation of fictional narratives and the configuration of the deliberative narrative that proposes the best possible course of action. Amalric offers a brief definition of these functions as follows:

what I would call a poetic function of the imagination – that is fundamentally a function of representation supported in the interpretation and the speech – and on the other, what I would call, following Ricœur, a practical function of the imagination – that is to say a projective function of the imagination capable of enlightening, guiding and energizing our action.³⁸

A real or fictional story of someone who acquired data of bank accounts from a security breach of the digital coffee maker connected to the home’s wireless network becomes a source for imagination to derive possible general rules for the security of connected digital devices. Such rules will be incorporated into the prospective narrative at the time of deliberation by increasing deliberative density and providing better conditions for good deliberation. In this sense, imagination is a point of epistemological confluence between the poetic operation of fictional narratives and the deliberative process of phronesis. Such a confluence becomes explicit through a narrative approach to practical wisdom.

The Intrinsic Plurality of a Good Deliberation

The third and final aspect of the relationship between narratives and practical wisdom is that critical phronesis is akin to public debate. Given the multi-dimensional complexity of technological issues ranging from the understanding of how a piece of software works to the social dynamics it will impact, to possible consequences for political regimes and economic processes, practical wisdom can only be reasonably conceived by a plural phronetic deliberation instructed and mediated by a narrative approach.

An extremely fruitful idea for the development of this dimension of the phronetic deliberation is Ricœur's suggestion of the "plural phronimos." This is the figure of the phronimos (the deliberator using phronesis) who is not exclusively linked to an isolated individual, but who emerges from a community of competent and wise people who debate a decision to be taken in a collective deliberation process. Consider Ricœur's statement summarizing his view on an essential aspect of practical wisdom common to the aporetic practical situation:

moral judgment in situation is all the less arbitrary as the decision maker – whether or not in the position of legislator – has taken the counsel of men and women reputed to be the most competent and the wisest. The conviction that seals decision then benefits from the plural character of the debate. The phronimos is not necessarily one individual alone.³⁹

Ricœur makes this suggestion while exploring the relationship between the concepts of practical wisdom and the Hegelian *Sittlichkeit* in the ninth study of *Oneself as Another*. In particular, Ricœur argues that a humbled version of the *Sittlichkeit*, divested of any claim of absolute truth, should not be viewed as a new instance rising above ethics and morality, but it is rather just another way in which practical wisdom can be recognized in its application in the public and institutional domain.

The idea of the plurality of critical phronesis distances the concept from a possible elitist connotation of a single individual who always decides for all. On the contrary, the recognition of phronetic plurality brings to the forefront the potential of phronesis when applied to real situations of ethical decisions in complex and conflicting situations that increasingly seem to require a deliberative process that transcends the ability of only one person

The narrative density that takes into account as many perspectives of retrospective narrative configuration as possible and integrates them with the myriad of possible prospective narratives is a necessary condition for good deliberation. Such phronetic deliberative process favors the recognition of the plurality of the phronetic deliberation that arises within institutions through debate. The fragile fabric of ethical consensus arises from the weaving of a dense phronetic narrative that creates through imagination a decision in the form of a prospective narrative.

Deliberations on issues involving new technologies are excellent examples of such situations. The plurality of practical wisdom responds to the need for interdisciplinary deliberation that takes into account not only logical and technical aspects, but fundamental questions about existential meanings that will be affected by the development or use of particular technologies.

Taken together, the exploration of fictional and ethical narratives to foster ethical sensibility and the application of practical wisdom considered from a narrative perspective provide a robust framework that enables meaningful responses to the new ethical dilemmas brought by the increasingly significant ways in which digital technologies are affecting the ways in which we act and suffer in the world.

- ¹ David M. Kaplan, "Paul Ricœur and the Philosophy of Technology," *Journal of French and Francophone Philosophy*, 16, 1/2 (2006), 49.
- ² Kaplan, "Paul Ricœur and the Philosophy of Technology," 49.
- ³ Kaplan, "Paul Ricœur and the Philosophy of Technology," 50
- ⁴ Paul Ricœur, *From Text to Action* (Evanston, Northwestern University Press, 1991), 125-43.
- ⁵ Emanuelle Burton, Judy Goldsmith, & Nicholas Mattei, "How to Teach Computer Ethics Through Science Fiction," *Communications of the ACM* 61, n°8 (July 2018), 54-64.
- ⁶ Luciano Floridi, *The Fourth Revolution: How the Infosphere Is Reshaping Human Reality* (Oxford, Oxford University Press, 2014).
- ⁷ David Kaplan, *Readings in the Philosophy of Technology*, 2nd ed, vol. 37 (Rowman & Littlefield Publishers, 2014).
- ⁸ Kaplan, *Readings in the Philosophy of Technology*, 1.
- ⁹ John Wall, "Phronesis, Poetics, and Moral Creativity," *Ethical Theory and Moral Practice: An International Forum* 6, 3 (September 1, 2003), 317-41.
- ¹⁰ Martha Craven Nussbaum, *Poetic Justice: The Literary Imagination and Public Life* (Boston, Beacon Press, 1997).
- ¹¹ Adelaide Fins, "Repenser l'éthique à travers l'imagination narrative et littéraire dans la pensée de Paul Ricœur et de Martha Nussbaum," *Bulletin d'analyse Phénoménologique* (Actes 10) XII, 2 (2017), 480 (my translation).
- ¹² Richard Kearney, "Narrative Imagination: Between Ethics and Poetics," *Philosophy & Social Criticism* 21, 5-6 (September 1, 1995), 173-90.
- ¹³ Paul Ricœur, *Time and Narrative*, vol.I, translation by K. Mclaughlin and D. Pellauer (Chicago, The University of Chicago Press, 1984, xii- 274 p. First published in French in 1983).
- ¹⁴ Ricœur, *Time and Narrative*, 184.
- ¹⁵ Paul Ricœur, *Oneself as Another* (Chicago, University of Chicago Press, 1994), 115.
- ¹⁶ Paul Ricœur, "Philosophical Hermeneutics and Theological Hermeneutics," *Studies in Religion. Sciences Religieuses* 5, 1 (1975), 13.
- ¹⁷ Eileen Hunt Botting, "Frankenstein and the Question of Children's Rights After Human Germline Genetic Modification," in *Reproductive Ethics II* (Springer International Publishing, 2018), 9.
- ¹⁸ George H. Taylor, "Prospective Political Identity," in *Paul Ricœur in the Age of Hermeneutical Reason*, ed. Roger W. H. Savage (Lanham, MD, Lexington Books, 2015), 124-5.
- ¹⁹ Ricœur, *Oneself as Another*, 150-1.
- ²⁰ Ricœur, *Oneself as Another*, 150-1.

- ²¹ Burton, Goldsmith, & Mattei, "How to Teach Computer Ethics Through Science Fiction," 64.
- ²² Rosalyn W. Berne & Joachim Schummer, "Teaching Societal and Ethical Implications of Nanotechnology to Engineering Students Through Science Fiction," *Bulletin of Science, Technology & Society* 25, 6 (December 1, 2005), 459-68.
- ²³ "Responsible Computer Science Challenge," Mozilla Foundation, accessed November 7, 2019, [<https://foundation.mozilla.org/en/initiatives/responsible-cs/>].
- ²⁴ Peter Kemp, "Narrative Ethics and Moral Law in Ricœur," in *Paul Ricœur and Contemporary Moral Thought* (New York, Routledge, 2002).
- ²⁵ M. Joy, ed., *Paul Ricœur and Narrative: Context and Contestation* (Calgary, University of Calgary Press Alberta, 1997).
- ²⁶ George H. Taylor & Fernando Nascimento, "Digital Ricœur," *Études Ricœuriennes / Ricœur Studies* 7, n°2 (2016): 124-45 [<http://ricoeur.pitt.edu/ojs/index.php/ricoeur/article/view/383>].
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- ²⁸ Ricœur, *Time and Narrative*, Volume 1, 40.
- ²⁹ Richard Kearney, "Narrative and Ethics," *Proceedings of the Aristotelian Society*, 70 (1996), 30-1.
- ³⁰ Paul Ricœur, "Critique and Conviction," trans. Kathleen Blamey (New York, Columbia University Press 1998), 147.
- ³¹ Sherry Turkle, *Alone Together: Why We Expect More from Technology and Less from Each Other* (London, Hachette UK, 2017).
- ³² Ricœur, *Time and Narrative*, Volume 1, 66.
- ³³ Fernando L. Nascimento, "Narrative, Mimesis, and Phronetical Deliberation," *Storyworlds: A Journal of Narrative Studies* 6, 2 (2014), 29-48.
- ³⁴ Hannah Arendt, *Between Past and Future: Eight Exercises in Political Thought* (Penguin, 1993), 200-1.
- ³⁵ Jean-Philippe Pierron, *Les puissances de l'imagination: Essai sur la fonction éthique de l'imagination* (Paris, Les éditions du Cerf, 2012), 12 (my translation).
- ³⁶ Ricœur, *Oneself as Another*, 241-9.
- ³⁷ Pierron, *Les puissances de l'imagination*, 126 (my translation).
- ³⁸ Jean-Luc Amalric, "L'imagination poético-pratique dans l'identité narrative," *Études Ricœuriennes / Ricœur Studies* 3, 2 (December 14, 2012), 110-1 (my translation) [<http://ricoeur.pitt.edu/ojs/index.php/ricoeur/article/view/130>].
- ³⁹ Ricœur, *Oneself as Another*, 273.