



## **Aristotle reloaded: do we need new virtues in a hyper-connected world?**

**Juan Luis Fuentes and Juan García-Gutiérrez**

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Jubilee Centre for Character and Virtues

University of Birmingham, Edgbaston, Birmingham, B15 2TT United Kingdom

T: +44 (0) 121 414 3602 F: +44 (0) 121 414 4875

E: [jubileecentre@contacts.bham.ac.uk](mailto:jubileecentre@contacts.bham.ac.uk) W: [www.jubileecentre.ac.uk](http://www.jubileecentre.ac.uk)



## **Abstract**

The emergence of new concepts such as digital critical thinking, cyber-wisdom, internet privacy, veracity in the transmission of the information on-line, the easy access to the information that allows a new way of researching and getting new knowledge or the very digital citizenship make us think about new horizons for character education. The objective of this paper is to analyze critically the main arguments that demand new virtues for a new world, for an epochal change guided by algorithms and emergent technologies, with significant consequences for development and enjoy of human rights and for the definition of an educated person.

## 1. The international technological agenda: the universal scope

Firstly, the question of whether or not we need new virtues for a hyper-connected society would likely be met with an affirmative answer regarding two areas. On the one hand, it is important to rethink virtues so that people can satisfactorily *adapt* to and live in today's hyper-connected society (conservative dimension). Indeed, many economics-based organisations foster continuous or life-long learning based on skills, such as methods of human 'updating' with regard to the social changes that demographics (increase in life expectancy) or technology (quick evolution and obsolescence of jobs) have brought to labour markets. However, the educational reflection does not end there, as, on the other hand, it is important to rethink virtues so that people can govern (themselves) and know how to manage this dizzying process of change and technological evolution geared towards the common good and greater personal fulfilment (normative dimension). One thing is clear, despite the negative aspects that the technological world may entail, we cannot contemplate returning to *pre-technological* times. Thinking about education today from a humanist approach involves including the technological dimension, without forgetting that the core and principal agent of education continues to be humans and their dignity.

From this perspective, we are going to focus on analysing and reflecting on the second area, which is also the most pedagogical. Therefore, firstly, we are going to identify the most relevant trends in the international context, based on an analysis of the *technology agenda* that exists in international organisations (specifically, in the scope of the United Nations). That is important as the educational narratives and discourses that are locally constructed and that are consumed by national and regional education administrations are highly influenced by international frameworks. An example of this kind

of influence can clearly be seen in the educational importance that is being given at all levels to the 2030 Agenda with its SDGs.

Indeed, analysing and knowing how to identify those frameworks of reference that are being internationally constructed by diverse international bodies on technology (despite the fact that, in many cases, they do not go beyond being soft law) is needed in order to pedagogically assess and develop reflections on the virtues required (and the best way to develop them) in hyper-connected education.

In this regard, we begin with the premise that the identity constructions projected by the world of education (including, therefore, character and virtues) are based, with increasing regularity, on those frameworks that (despite not going beyond soft law) are established or proposed by different international bodies. Furthermore, it is also appropriate to recognise that, in many cases, it regards bodies that do not have a clear educational purpose but rather an economic, political or even a security and defence one (OECD, EU, OSCE, etc.).

An example of that can be seen in how diverse international organisations position themselves working on or making public relevant reports on the impact of artificial intelligence in education. Particularly important is the recent “OECD Digital Education Outlook” (OECD, 2021a), entitled *Pushing the frontiers with AI, blockchain, and robots*. We can find in this report the foundations and reasons that orientate education towards more technological approaches to the detriment of more practical or ethical ones. We will soon look at some statements featured in the introduction that can give us an idea of the new technology wave that may flood teaching institutions (without prior warning or room for criticism):

Software and social robots that are fed constant streams of data have the greatest disruption potential for teaching and learning: it’s not just technology, it’s teachology. While we study

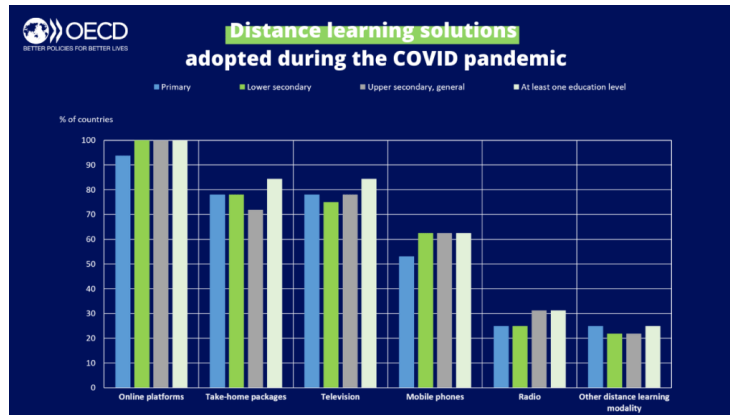
mathematics on a computer, the computer can now study how we study and then make our learning experience so much more granular, adaptive and interactive (p. 3).

Of the three areas of technology the report covers, blockchain is the most mature though applications, so far, are not in teaching and learning. Blockchain looks promising as a reliable, user-friendly credentialing system that can replace lumpy and expensive degrees, and help unbundle the institutional monopolies that often come with them. Authenticated certificates of completion from education and training programmes outside traditional academic institutions – like on-the-job training and massive open online courses (MOOCs) – are an important piece of the puzzle in bringing us closer to lifelong, life-wide learning. If everybody, independent of their jobs, can upskill and reskill and have blockchain-verified qualifications at their fingers, job-changing will be faster and more fluid, and much less anxiety-ridden (p. 4).

What is clear is that for robots, classware, predictive analytics and the like to work effectively will require reinventing the role of teachers. Technology and AI are not magic powers, they are just extraordinary amplifiers and accelerators that add speed and accuracy. AI will amplify good educational ideas and good practice in the same way it amplifies bad ideas and bad practice. AI can help remove bias and discrimination from educational practice in the same way it can spread and scale bias in educational practice. It can empower teachers to identify children at risk or disempower them from exercising human judgment. In so doing, AI can induce a paradigm shift from an education of consequences – with teachers helping their students understand who they are and who they want to become – to an education of correlations where all the technology does is to look back at what has happened with students with similar characteristics in the past. While technology is ethically neutral, it will always be in the hands of educators who are not neutral. The real risks do not come from AI but from the

consequences of its application. When early warning systems flag a student in trouble, it should be a person who evaluates why and help get her/him/they back on track (p. 4).

On this point, a short excursus is required on the general acceptance of digital technologies in education ('digital education'), a result of the disruption to in-class education processes caused by the COVID-19 pandemic. In fact, recognising the role the pandemic has playing in that general acceptance of digital education is important. Nobody conceals the fact that thanks to this digitalisation it has been possible, in many cases, to carry on, despite in-class educational processes being suspended or cancelled due to the pandemic. The general teacher and student experience (including their families) during the lockdowns, that experience of 'migrating' from in-class education to digital education, has had the effect that everyone has been able to see the benefits and, therefore, its acceptance and popularity have also increased, despite the identification of several obstacles. As a result, teachers and students have relied on remote teaching and learning on an unprecedented scale (OECD, 2021, 4). Furthermore, many believe that technologies, particularly educational AI systems, would have played a much bigger role during the pandemic, especially in terms of personalised learning, had their use already been commonplace (Vincent-Lancrin, 2021). The question is, why did we need a pandemic to make these things happen? (Schleicher, 2021). It is precisely that level of acceptance –uncritical and a product of circumstances in many cases–, and willingness to continue expanding and delving deeper into digital education processes (without knowing whether it is due to pedagogical reasons or commercial motivations) that is the main reason that drives us to continue analysing and reflecting on the impact of technology in human training and development.



Distance-learning solutions offered in participating countries during 2020 and/or 2021. Source: OECD (2021c, 15).

That said, a short analysis is required of the aforementioned paragraphs from the *OECD Digital Education Outlook*. This analysis will help us to justify the need for a more practical approach in education, as well as to discuss why education from the perspective of virtues is needed in a hyper-connected world. We can consider the educational phenomenon from two angles: the technological perspective and the practical perspective. However, we continue our reasoning in line with Bárcena, Gil & Jover (1993, p. 71), who suggest that education is, above all, a moral activity that is not inconsistent, under certain circumstances, with technological approaches. What is more, not only is it currently not inconsistent, but rather the practical perspective is essential in ensuring that education (or the learning-teaching processes) do not become social engineering based on data, AI calculations and educational software.

In the previous paragraphs, and without being exhaustive, we are presented with the convenience of adopting or integrating technology (based on data and AI) in educational processes with two important premises. The most powerful of the two is that doing it will improve the learning and, consequently, the life and future career of individuals. Note that references are not so much made to ‘education’ but

rather to 'learning'. The other premise is that the proposed technology (AI, blockchain, robot, etc.) is neutral and, therefore, will depend on the hands using them. These ideas summarise the most favourable and advantageous postures regarding the introduction of the technological approach in educational processes. These statements, *myths* in our opinion, despite being very widespread and socially accepted, lack reasoning: technology is not neutral and its introduction alone does not improve the educational process.

Before moving on, it is important to realise why the technological approach is insufficient, in our opinion, for organising and understanding the entire education process (and not only learning). From the technological perspective, education is seen as a type of interaction between individuals and their surroundings. As such, education is understood in a context of interventions in which experts select or choose optimal influences for individual development. Education would act as an “intervention-organised catalyst”, aiming to “rescue people from undesired configurations” (Castillejo, 1987, p. 36). Education would be an “optimising intentional intervention” (Castillejo, 1983, p. 149). From this technological perspective, educational action is undertaken pursuant to the instrumental rationality model (means/purpose) and, therefore, the assumption of this technological approach implies the acceptance of both the ‘technification’ of such action and the means/purpose-related reasoning in the design and understanding of the educational products and processes (Angulo, 1994, p. 85).

In this context, what Castillejo (1987, p. 39) calls ‘pattern’ appears; that is, the establishment of the model that the educational process must adjust to within the means-purpose structure. That establishment entails a number of problems and, as he himself suggests, no version, perspective or ideology can assume the definition of ‘pattern’ (p. 39), but nor can it exclude it. So, how can educational intentionality be justified? The technological perspective reveals the need for a particular



intentionality in the education process, but it seems unable to resolve the real problem: its definition and justification.

That, apparently, is positive in terms of eliminating from the educational process any kind of ideological orientation or influence. Carrasco (1984) talks of ‘rational regulating’ compared with ‘ideological regulating’. With that, not only is the rational nature of the action highlighted, but so too is its apparent neutral nature due to the absence of ideological elements.

In a hyper-technological and hyper-connected world, dominated by technique, the instrumental rationality has darkened the possibility of reflecting on the most human purposes and ethos (and, consequently, the educational one too). For Cortina (2015, p. 7), the triumph of instrumental reason makes it impossible to rationally argue the ultimate purposes; it has taken what Aristotle considered as rationality of *poiesis* (production), which needs the virtues of *tekne* (technique), to the highest position on the podium of rationality; while the rationality of *praxis*, which is required to properly exercise the virtue of *phronesis*, that is, prudence, has fallen from said podium. Furthermore, instrumental logic introduces the idea of ‘reification’, as a form of alienation, that consists of the transformation of property, relationships and human actions into the property, relationships and actions of things that become independent from people and govern their lives (Cortina, 2015, p. 5), as is the case with technological mechanisms, regardless of the type (devices, application, etc.).

In short, as observed in the reports of the OECD (particularly in the paragraphs mentioned), the logic that persists leads us to talk more about teaching or learning than education, and, by the same logic, we will also be closer to the idea of competence than to that of virtue. When we adopt a technological approach, we usually think that education is an external result, the consequence of a logic of means/purpose and, therefore, as being a consequential product of teaching or learning.

Prudence is a consequence of exercising practical reasoning and it is that precise logic that follows educational action. We cannot stop repeating that education is not so much *poiesis* as *praxis*, given that the purposes of the action are not external to it, but rather internal. In the words of Aristotle: “production has its end in something other than itself, but action does not, as an action done well is the end itself” (1140b, 5). He also stresses the connection with truth: “Prudence is a way of being rational, truthful and practical as regards what is good and bad for man” (1140b, 35).

However, if we focus on the supposed advantages produced by AI, we will conclude that these AI systems are in a better position or a more objective position to guide decisions. Given that they are based on the broad and extensive collection of data, greater information on the best decisions may be presumed. This technological perspective may seem liberating insofar as freeing people from the burden of deliberation and, with it, from the effort to morally improve. But, Macintyre (2017) reminds us why we must strive to cultivate virtues, particularly –we add–, in a hyper-technological context:

Everything is dependent on how and the extent to which agents see themselves and others in their daily work as possessors of rational agent capacities and potential, with regard to beings that prioritise property, which is what characterises rational agents, and as persons that need virtues to develop and exercise said capacities (p. 363).

In other words, the *akrasia* or weakness of human intelligence/action, the weakness of good or of rational deliberation itself must be sustained by moral virtue(s). We cannot forget the connection that the virtue concept has with the Latin term *vis*, meaning strength. If, as moral agents, we relinquish deliberation to technological systems, why would we need virtue?

The other aspect that we must also take into consideration is the idea of experience that emerges from the technological approach, as instrumental logic is more penetrable as regards business or trade demands than those of practical reason. The idea is simple: the notion of experience in the technological approach is closer to the notion of customer experience, relating to business areas, than to the idea of pedagogical experience. In other words, an experience that is closer to opening an iPhone box than to that of undertaking an act of generosity, for example. That is, a type of process is generated in which the business dimension is introduced with a series of characteristics that could well be associated with the experience created by any other technological product (detailed and precise, adaptive and interactive) as, ultimately, technological experiences seek, above all, personal individuality in two ways. On the one hand, effectively, providing a unique experience, and, on the other, absorbing the greatest amount of data that such connection or technological experience can produce. That is another reality that we must not ignore, as the ethical experience that virtual environments generate is, in many cases, more emotional than truly ethical.

This is how pedagogical narratives on technology end up, ultimately, in debt to international political agendas on the subject, which configure a context that cannot be ignored in answering the question posed in this communication, which we are now going to address.

## **2. Do we really need new virtues for a technological society?**

The question on the need for new virtues or of renewed character education in the current technological world, is not simple and requires an analysis of both the arguments that could indicate a positive response and those that advocate education without substantial changes as regards the pillars of what we know as education in a traditional context, where in-person interpersonal relationships essentially take place. A context in which –it is worth remembering–, the educational action has mainly

been developed from its origins in the primitive societies of different cultures up to the start of the third millennium. This initial approach already delimits, to a certain extent, the subsequent discussion, as it is clearly evident that the current context in which people live and grow has been significantly changed due to the technological development and its influence in the social sphere and, as such, it makes no sense to talk of an education that is one and the same. Indeed, except for very radical cases, today nobody rejects the idea that curriculums should be revised to a certain degree with the aim of incorporating new content and lessons linked to the technological sphere that allow new capabilities to be acquired.

However, the deeper and more relevant question that we are focusing on here refers to whether it regards a profound and substantial change that would affect the same educational purposes and that could lead us to talk of a different and renewed version of character education, which, following the first approach based on Aristotelian ethics and the recent revival of the ethics of virtues in the mid-twentieth century, driven by Anscombe (1958) and other subsequent authors, would give rise to an alternative approach in the digital environment. Conversely, we must also consider if we are really talking about consistent contextual adaptations in the addition of content or the incorporation of new means that facilitate the task of teachers and students, which would relate more to an adaptive educational change. As such, it is worth basing the discussion on the following terms:

- On the one hand, whether or not we need new virtues that entail a significant change in educational action. That could also lead us to defining a new concept of person –which anthropologically underpins, in a different way, the task of educating and its ultimate significance–, insofar as, from the ethics of virtue that the neo-Aristotelian character education falls into, ethics are established not so much in certain rules or principles, but rather according to human potential (Massini-Correas, 2019).

- Or, on the other hand, if it regards more a mere adaptation to the new contexts, conserving the most fundamental and characteristic elements of classical education, accepting the possibility of rethinking certain already-known virtues or to prioritise a series of already-known virtues above others, thereby meeting the new needs brought about by the technological context.

Although the questions posed require more time and space than we can afford in this text, we are now going to consider some of the main arguments that, in our opinion, could support each position debated.

## **2.1. New ways of doing, being and educating**

There is no doubt that our habits have changed in recent years, and in a relatively short period of time, motivated by technology and, in Aristotelian terms, that could entail a transformation of the human being. The Greek philosopher believed that ‘we are what we do’, or, in other words, we are made through practice, for good or for worse. In *Nicomachean Ethics*, it is clearly explained that he who assiduously practices a virtue, such as generosity, has a great chance of becoming a generous person, while he who habitually lies, is at greater risk of becoming a liar. While these transformations are not irreversible, they do not, due to their nature, occur instantly. They require repeated actions over time, and not every so often, but rather frequently in one’s everyday life. It would be questionable to say that we have a habit relating to an activity we do, even with strict regularity and sufficient frequency. In other words, no one who goes out running once a month can call him or herself a runner; no one who goes to a restaurant every two years can call him or herself a regular client. The habit, therefore, requires greater assiduity and regularity in the activity. Consequently, we are not defined, or at least not significantly, by the actions that we occasionally undertake.

In this regard, we can affirm that the incorporation of technology into our lives has been characterised by, among others, the following traits. One of its main influences refers to two of the elements that, to a large extent, condition human existence, mainly, space and time. On the one hand, we don't usually use technology at certain infrequent moments in time, but rather its use constitutes frequent and habitual actions, and in such a way that it has become normalised; it has incorporated itself into our habitual behavioural repertoire and, therefore, to a certain degree, we could say that the use of technology defines us as human beings, who find its use among our habits. On the other hand, the digital devices share not only our time, but also our space. We no longer need to go to a specific place where technology is found, but rather the technological devices are with us and occupy our own personal space. We carry them in our pockets, on our wrists and in our wallets, and they come with us practically everywhere. That is so much so that their use has become automated and we use technology almost unconsciously and inadvertently in the same way that we shift gears when driving. We repeatedly look at our mobile phone or type on the computer in a similar way to blinking and breathing. Perhaps the most significant test of that are the effects we experience when we are without the technology that we most use and on which we base much of our daily behaviour. These effects are similar to the sensation of lacking or missing something essential in our lives.

Additionally, the areas of human experience in which technology has integrated itself are not of a marginal or specialised nature, or are limited to a reduced group in the population. The relatively reduced financial cost and its ease of use has made technology available to almost everyone, at least in Western societies, while its uses are not exclusively work-related, but also, and to a large degree, personal, thereby acquiring a cross-sectional dimension in the areas of human life. Therefore, technology has come to occupy a fundamental place in our leisure time, which regards a less instrumental and finalist nature (Pieper, 1974; Fuentes, 2017). It has intervened in our social relationships, and even in the most private and valuable ones for human beings and in their nature,

those based on friendship and love. That does not necessarily mean accepting that an exclusively virtual relationship can be understood as friendship or love, but it does entail recognising that technology, due to its multiple channels of expression and interpersonal communication, does at least partially intervene in many of the components of those interpersonal relationships. A technological transformation has also taken place regarding participation in public matters and in the configuration of current democracies, which relates to the same exercising of citizenship (Gozálvez, Romero & Larrea, 2019). The use of digital means and participation in virtual discussion forums have become a priority for political parties and social movements over the last decade in different parts of the world, which cannot be understood without considering the role that technology and the internet have played in them (Castells, 2015).

In the academic field, technology has also had an impact on methods of researching, discovering the world and on scientific progress, insofar as that it has indefinitely increased access to information and reduced the cost and time required to obtain texts, as well as in their editing, publication and dissemination in different formats. That has required researchers to have new capabilities and, together with other factors, it has led to the posing of vital questions regarding the same essence and sense of academic life, such as, for example: what sense does it make to publish today an abundance of information that is multiplied at a frenetic rate and that, as a result, hardly anyone will read? (Burbules, 2020).

Therefore, it seems logical to think that we are not only facing a superficial or anecdotal matter, the effects of which are merely limited to a few individuals, but rather that it entails a phenomenon that affects practically the entire population, and that occurs cross-sectionally in the essential areas and facets of human life that take place every day, which are, therefore, capable of generating new ways of being, interacting with others and positioning ourselves in the world.

As such, if this context makes new ways of being possible, it is reasonable to also talk of new ways of educating and thinking about education. In this regard, it is significant that authors like Jonas (1985), in reference to technology in general, and Burbules and Callister (2000), argue, particularly about educational technology, that new means are capable of producing new educational objectives. But the essential question lies not so much in the sense of adapting to new social circumstances (Dewey, 1989), nor in that of choosing correctly ethical behaviour, but rather in a deeper one that relates to facilitating the process of human fulfilment in the new context. In other words, and going a little further, the fact that new capabilities are in demand and that they even form part of a new literacy (UNESCO, 2011), not only do they not hinder suitable character education and human fulfilment, but they also and rather particularly make it possible, while, lastly, affording us happiness.

We are going to analyse an example of a specific virtue, common of an intellectual character: critical thinking or critical spirit; which, under different names, usually appears on the lists of virtues or desirable traits of character training and that has been considered as one of the main skills required over the forthcoming years, according to the World Economic Forum (2020, p. 5). According to different authors, we can define it as a kind of logical thinking that helps us to interpret and give meaning to the world (Doddington, 2007); that is based fundamentally on reasons (Siegel, 1988) derived from criteria or principles (Lipman, 1991) to evaluate and issue opinion, which lead us to adopt a position in the matter at hand (Ibáñez-Martín, 1991) in such a way that such positions form part of our beliefs and perceptions and, coherently, influence our way of thinking, acting and feeling.

Those authors, points of reference in the study on critical thinking, largely analysed this virtue prior to the turn of the millennium, when the technological and internet revolution was still at an early stage. Therefore, it does not evidently regard a concept or definition thought up for a digital context. It is perhaps for that reason, without questioning the value of their ideas, that it could be said that it is



lacking for a virtual environment, or that it fails to understand the very characteristics that define it and differentiate it from the physical space.

Critical thinking implies having the information needed to formalise opinions or judgments, which in the virtual sphere also entails an added competency in the use of software and hardware; it requires knowing the different sources available that come from different and new places and in diverse languages, which may give rise to *'infocipation'* or difficulties in handling excessive information about the world or ourselves. In this regard, observing how numerous people have abandoned social networks due to the pressure they receive from the virtual community and the high expectations placed on them is significant. It is worth remembering the cases of top-flight athletes such as Simone Biles, the US gymnast, Tom Dumoulin, the Dutch cyclist, and Naomi Osaka, the Japanese tennis player, who have suffered from anxiety issues due to the difficulty in overcoming the pressure placed on them as a result of being exposed to millions of followers, a pressure that materialises much more directly and quickly through social networks; not to mention the influence exerted by haters that confuse critical spirit with the destruction of the individual.

This new concept of critical thinking also implies learning to distinguish a new notion of truth, 'post-truth', that finds on the internet a terrain sufficiently fertilised to cultivate and favour the circulation of fake news and unfounded rumours, feeding conspiratorial stances, fanciful beliefs and populist approaches on reality; despite always constituting a tool for social influence, opinion creation and the purest form of manipulation (Pina Polo, 2019), modern technology has expanded its reach and effectiveness (Caro, 2015). As such, the role of teachers today goes beyond, and especially so, that of people who must tell their students the truth. They must undertake a more complex role in which they are called on to put their students in a position to recognise truth in an ocean of meticulously prepared and well-thought-out messages that are configured according to the individual characteristics of the

receiver, taking into account their particular use of the internet and their habits, interests, preferences, geolocation, genre, etc., (Conroy, 2020; Jackson, 2019). As such, they must be able to resist and manage ultra-personalised and hyper-abundant commercial advertising in numerous multimedia formats, based on well-thought-out neuromarketing strategies, and different kinds of increasingly sophisticated fraud, such as phishing, smishing and vishing. That must also be done under a series of external factors that do not aid their critical vision, such as the use of commonly individual-based technology with an eminently social reach, which, in the case of adolescents, entails a lack of adult supervision due to diverse factors including the intergenerational digital gap (Sánchez Pérez & Fuentes, 2021; Muñoz et al.) and a frenetic pace characterised by the instantaneousness of the internet that hastens both decisions and behaviour.

Together with critical thinking, we could consider other virtues or classic character traits that are particularly called into question by the features corresponding to the digital environment and that incorporate new demands that were not applicable in the traditional analogue context. Indeed, digital responsibility (Hernández, Soriano, Fuentes & Santos, 2015), safeguarding online privacy, cyber-wisdom (Dennis & Harrison, 2020), transmedia creativity, and digital citizenship are some examples that require a similar analysis in order to be aware of the possible transformations in 3.0 character education.

## **2.2. Character education adapted to digital environments**

Despite the foregoing, we find arguments that seems to suggest that the educating of character and the virtues required for the digital context are not too different from the generic approaches designed for a context of in-person, interpersonal relations and that, in any case, it regards adapting to the new environment, while maintaining its essence and basic foundations. As such, it entails neither discussing

a new form of character education, strictly speaking, in the digital environment, nor new virtues that replace previous ones.

A preliminary consideration worth undertaking, relates to the obvious fact that, despite the extensive use of technology, we do not live in a completely virtual environment. The activities we undertake in analogue contexts that remain free of technological intervention are still numerous and very significant. In these contexts, interpersonal relations are fully in-person. Specifically, we can identify three areas: virtual, in-person and hybrid, a combination of elements from the first two, regarding which it would be bold to state that a new form of education on digital character should replace the previous one, as we would be relegating to an inferior level a very important part of our existence. Moreover, one of the lessons we can learn from the health crisis lies in the fact that basic education, which constitutes one of the most important pillars of our society and relates to one of the most decisive stages in human life, cannot be completely virtual, not just because of the digital gap that makes accessing technological means difficult or the difficulties that that involves for achieving the work-life balance, but rather because of the importance that in-person personal relationships entail for human development and the impossibility of living exclusively in a virtual world.

Furthermore, the endless creative capacity of human beings in the technological area comes up against the limitations of human existence. While some space-time barriers are exceeded, others stand strong and continue to unassailably increase before us. Indeed, the ease of and multiple access to information does not allow us to simultaneously read two documents, but rather concentration has to be maintained on a single source. The valuable time saving that multiple devices provide us with cannot meet the distressing finitude of human life or halt the inevitable passing of years, which may be encouraging given the problems encountered by struldbruggs. These characters from Jonathan Swift's classical novel, *Gulliver's Travels* (2000), are the inhabitants of Luggnagg that the protagonist meets on

his third journey. Struldbruggs are immortal, something our species deems as advantageous and desirable, but such immortality is paradoxically the source of many difficulties. Among them, there is one of great importance for character education in a limitless existence, devoid of significant meaning and source of hinderances for social organisation and intergenerational renovation. On the other hand, sophisticated high-definition cameras are still unable to provide the capability of being everywhere or overcoming the mind-body or cognitive-corporal dissociation that presence in virtual spaces generates, focusing our attention on a single space.

The second matter that must be considered is whether or not it makes sense to talk of new virtues within a framework of realistic ethics, like that of the ethics of virtue, on which the current neo-Aristotelian character education is upheld. Talk of new ethics must certainly sound alarm bells for those who believe that ethics have objective and realistic foundations. In other words, they are not only sustained, by their nature, on changing human standards, but rather they rest on the idea that morality also goes beyond the beliefs of individuals and society. In the case of the ethics of virtues, the criteria for deciding on good and bad are anthropologically founded, constitutively rooted in human beings and their perfective potential. As such, it should be questioned how it is even possible that we are talking of new virtues or character traits as result of the new technological context. Conversely, this pretention could fit with greater ease in one of the constructive types of ethics, which are more receptive to the emerging social demands and more open to the creation of new ethical rules, as, due to their very conception, they are historically changing factors dependant on the circumstances and intersubjective rationality of a group or society, and they are not subject to any permanent trait of human beings. In this regard, the words of John Dewey are very significant. Dewey, in a pragmatic approach, places society, instead of individuals themselves and their human condition, as the main reference for deciding on the content of school curriculums. As such, in *The School and Society* (1899, p. 20) he said:

Whenever we have in mind the discussion of a new movement in education, it is especially necessary to take the broader, or social view. Otherwise, changes in the school institution and tradition will be looked at as the arbitrary inventions of particular teachers; at the worst transitory fads, and at the best merely improvements in certain details.

At the same time, ethics built on opposing cognitive or realist ethics seem to fit well in the technological context, among the main characteristics of which is a logic accustomed to the seemingly infinite capacity of the human being to create and produce different products, devices, programmes, advertisements, opinions, trends, etc. As such, new norms and values may entail new elements susceptible to the creative freedom of users. However, it is controversial to think about how to integrate new virtues in a realist system like that of the ethics of virtue, which does not conform to exclusively subjective criteria for determining good (Kristjánsson, 2017), but rather it is the same human reality received and the perfective nature of virtues that may potentially be found in it, which is not completely determined by us, that forms the foundations of ethical behaviour. Therefore, it would make sense to talk of new virtues due to a change in context.

It may be particularly adduced that the current approaches of character education, albeit inspired by Aristotle, have not emerged fully identified with the Stagirite. They have required certain adaptation in light of new advances in knowledge, practice and contemporary evidence, which is why the term neo-Aristotelianism has been attributed to him (Kristjánsson, 2015). However, this renovation of Aristotelian ethics have not renounced their essential pillars, but rather they have updated them, and the basis of their proposals on character education does not lie in subjective approaches, but in objective references of reality; a reality that may be known, at least partially, and, through a speculative intentional activity and an examination of the experience, it is possible to discover common traits

susceptible of being enhanced through education aimed at improving individuals and the societies they live in.

This approach helps us to respond to the arguments developed in the previous section. Effectively, new habits like those required by virtual environments and the integration of technological devices in the time and space of humans, entail a significant challenge in the education of character and virtues. One challenge may be assumed by the Aristotelian framework of virtues. Specifically, the very idea of prudence underlines the role that context has in determining good, and so much so that it requires a specific virtue that helps us in identifying what is virtuous depending on the changing circumstances. In other words, the insufficiency of the virtues individually in determining the virtuous middle ground between two vices and the incapacity of the context itself to indicate what is good at any given time and place, make the existence of practical wisdom that governs the decision-making process in changing contexts necessary. As such, what is virtuous may vary. For example, when a person who has to decide whether or not to enter a burning building is a firefighter trained for such situation or someone suffering from asthma. While for the first, it may entail an act of bravery, for the second it entails reckless behaviour, which puts his or her own life in danger and that has little chance of saving those inside.

Therefore, we can say that the new digital context requires a special exercise in practical wisdom, deliberation and focus on the new reality that allows us to clarify how we should act in unknown circumstances that we have not previously encountered, but that do not necessarily require different capacities, but rather that they are applied in line with a careful evaluation of the reality. When firefighters face an emergency situation, they evaluate the circumstances before acting. Familiarity with certain factors may accelerate the decision-making process, but unprecedented situations require a

greater and more prudent reflection, analysing risks, establishing limits and adopting security measures that were not needed in different circumstances.

If we return to the example of critical thinking, we can see that the definition provided by different authors, albeit previously, are not inappropriate for a digital context and that the principles established in them are presented as valid and useful references for articulating a critical and virtuous attitude in virtual environments. There is no doubt that the circumstances described entail greater demand, greater deliberation on the information received and, in some cases –regarding the knowledge and use of new sources of information–, new training. But the fundamental objective remains to be, as Gilson suggests on the purpose of teaching philosophy, “an unwavering will to know, combined with an absolute respect for the truth” (Gilson, 1974, p. 59; Vid. Ibáñez-Martín, 2021). Due to its very nature, virtue insofar as its practical and operative concept, is linked to particular circumstances and its worth must be assessed considering the factors that intervene at a given time and specific place. As is often said, ‘the proof of the pudding is in the eating’. Its full meaning is acquired in practice, when it is realised and experienced, but not merely in terms of its knowledge and description, as that would reduce it to a simple theoretic delimitation without the particular context in which it is undertaken. As such, it is of a flexible and malleable nature, as seen in the case of the firefighter and the ill person. Therefore, the element that changes in the digital context is not virtue, but rather the context itself, as demonstrated in the fact that the definition of critical thinking established prior to the game changing technological thinking remains valid for a virtual environment.

Perhaps it is more appropriate to warn that the virtual environment has contributed to reassessing some virtues over others or, in other words, has created certain conditions in which particular capacities are tested above others. In addition to the search for truthful information on the internet, which requires a greater critical attitude, it is worth mentioning that by increasing our possibilities of

action and influence on others, the virtue of responsibility also acquires greater importance, as Hans Jonas (1985) showed with regard to the nuclear arms race, where parallels can be found with our action on the internet and on social networks. Creativity can find ample space for development in the virtual environment, as well as new means and channels of multimedia and transmedia production that is particularly interesting for the training of young people (Scolari, 2019).

Together with that, the necessary reflection on virtues in the technological context finds connections between certain character traits that need to be strengthened. Indeed, cultivating critical thinking seems to require, in turn, a bolstering of strength, which helps one to tackle the pressure of social networks, in terms of resisting and persisting despite well-founded or unfounded criticism. Safeguarding privacy constitutes one of the most important and controversial challenges in terms of social networks for character education, given the exposure the internet affords and several current youth models that seem to question the worth of privacy, personal aspects, the lines that separate different social areas and even the meaning of corporeality and its inseparable nature from the human mind.

### **3. Preliminary conclusions**

The enormous capacity technology has to amaze us may generate the feeling of a need for new structures of thought with which to interpret reality and, specifically, to educate character in the new digital environments. The different facets of human life that have been affected by technology is significant and must sound alarm bells for education philosophers and theorists regarding the virtues required to achieve human fulfilment in a new and predominantly hybrid context.

However, a detailed analysis seems to suggest that neo-Aristotelian character education has the elements required to address the ethical-pedagogical challenges created by virtual environments. The



ethics of virtue are based on perfective human potential that, albeit unchanged by the new context, requires an adaptation considering the particular circumstances and a reassessment of some of the virtues that take on renewed importance, which are even associated with others, thereby strengthening the reticulate and comprehensive dimension of character.

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