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*Integrating Cyber-Wisdom Education
into the School Curriculum*

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Introduction

Ninety-six percent of households in the United Kingdom are connected to the internet through digital devices (Statista, 2020). In the UK, virtually all adults are internet users, and children increasingly have their own smartphones from a younger age (Ofcom, 2019, ONS, 2019). Whilst the internet offers opportunities for entertainment, work, socialisation and active participation in society, it also presents a number of risks, including, for instance, privacy constraints, misinformation, identify theft, inappropriate content, online abuse, cyberbullying and grooming. In an age in which children are both the most vulnerable and the pioneers when it comes to using the internet, the complexity of change that it represents poses new challenges. A key question is how we, as a society, can protect children from online risks while ensuring that they can also pursue online opportunities (Livingstone & Third, 2017). A possible answer, which we explore in this insight and position paper, is through the introduction in schools of character education that focuses on the cultivation of cyber-wisdom. In this paper, more specifically, we provide an introductory overview of how traditional approaches to character education, and emerging knowledge about wisdom, might be refocussed to cultivate virtues and wisdom in children and young people that can help them flourish online.

The recent UK Government's (2019) white paper on online harms is an example of the extent to which policymakers in the UK are committed to making the digital environment a safer place for users of all ages and, in particular, for children. Recurrently, as offered in the white paper, proposed solutions focus primarily on the regulation of online platforms and search engines in order to make these safer to use, as well as the promotion of internet safety education and digital literacy education – where the latter refers to the teaching of the practical and critical skills and knowledge that users need when using digital technologies (Polizzi, 2020). Not only, though, are these solutions often contested in terms of whether and how they should be implemented, but what is often marginal is the idea that the risks that the internet presents require also a commitment to promoting another form of education, one that goes under the name of *character education*. The Jubilee Centre for Character and Virtues (2017) broadly defines character education as education that “cultivates the virtues of character associated with common morality” – virtues that are necessary for making decisions within “diverse spheres of human endeavour” and for the purposes of human flourishing (p. 1).

We know from Ofcom (2019) that the majority of children in the UK use social media like Facebook (69%), Snapchat (68%) and Instagram (66%). Problematically, more than three out of ten 8-15 year olds think that “people are mean to each other on social media all or most of the time” (p. 21). And “while almost half of 12-15s feel it is not OK for people to be able to say what they want online if it is hurtful to others, three in ten are unsure, suggesting a degree of uncertainty around what is and isn’t acceptable” (p. 21). This means that in an age in which the internet has become so ubiquitous, it is imperative to equip children with the ability to make decisions online that, on the one hand, are driven by virtues such as honesty and compassion and, on the other, can enable them to use digital technologies more responsibly and choose the right course of action, especially when interacting and communicating with other users. Such an ability can be defined in one word as *cyber-wisdom* (Harrison, 2016a; Dennis & Harrison, 2020). Inspired by the Aristotelian intellectual metacognitive quality of *phronesis*, cyber-wisdom is conceptualised in this paper as a meta-virtue that coordinates and operationalises the other virtues. It is the quality of being able to do the right thing at the right time when online. Despite its importance, however, cyber-wisdom education is only at the fringes of formal education, which is reflected in the extent to which its place in the school curriculum is not just limited but also unclear.

With this in mind, after a section on the foundations of cyber-wisdom education, this paper reviews the national curriculum for England with a view to examining the current status of subjects like Computing, PSHE (Personal, Social, Health and Economic education) and Citizenship. Finally, it provides some suggestions and recommendations on how to ensure that cyber-wisdom education is firmly embedded across the school curriculum. Mindful of how cyber-wisdom education overlaps with other forms of education about the internet, this paper has therefore both a conceptual and a practical aim. Conceptually, it delineates the contours of cyber-wisdom education in relation to its place in the national curriculum for England. In doing so, it underpins the foundations of a new project, which is being carried out by the Jubilee Centre for Character and Virtues, that focuses on the teaching of cyber-wisdom in schools. Practically, it sheds light on how the school curriculum might need to be revised in order to incorporate cyber-wisdom education. Such a conceptual and practical task has implications for policymakers, educators, practitioners and, given the potential of cyber-wisdom education to facilitate human flourishing, for society at large.

Cyber-wisdom Education

Before reflecting on the foundations of cyber-wisdom education, it is worth noting that the advent of the internet has created a number of challenges for schools and the education system, and not just in relation to how to integrate digital technologies within traditional teaching practices, but also in terms of what and how schools should teach about the internet. One of these challenges concerns the generational gap that exists between teachers (and adults more widely) and children. Not only are students generally savvier than teachers when it comes to using digital technologies, but teachers also often lack adequate resources and training in order to teach about the internet (Polizzi & Taylor, 2019). It is fair to argue, furthermore, that the education system lacks a unified framework for how to equip students with the skills and knowledge they need when using digital technologies. This is particularly the case when it comes to how digital literacy is understood and promoted via formal education (Polizzi & Taylor, 2019), but it also applies to other areas of education about the internet, areas that are taught across the national curriculum for England. These include internet safety education, which aims to teach children how to recognise and deal with online risks, as well as digital citizenship education, which is often understood as education that encourages children to participate in society in ways that are digitally mediated and in line with norms of appropriate behaviour (Ribble, 2007). Both these forms of education overlap with cyber-wisdom education. But the latter is also quite distinct, which is why it is important to ensure that it is firmly integrated into the school curriculum. However, while the national curriculum for England was reformed in 2014 by reducing its volume with the objective of enabling teachers to have more freedom in terms of designing their own lesson plans (DfE, 2013d), the extent to which it has shrunk has *de facto* undermined the potential of drawing cohesively on multiple subjects to provide the kind of education about the internet that children need.

Cyber-wisdom education, as we understand it in this paper, refers to a form of moral and character education focussed upon internet-related issues that is grounded in virtue ethics in ways that are different from, but also complement, two distinct moral theories: 1) deontological theory, which consists of a rule-based approach to moral education, and 2) utilitarian theory, which is rooted in the idea that decisions should be made on the basis of awareness of their overall consequences. In the digital age, “the observation of rules and the awareness of the likely consequences of our online conduct should both play a part in how we orientate ourselves online, but ... these two strategies need ... [to operate in support of] the

character-based approach of the virtue tradition” (Dennis & Harrison, 2020, pp. 3-4). On the one hand, rules alone are not sufficient for guiding moral behaviour online. They can be rather abstract, oblivious to the emotional and characterological dimensions of moral motivation, and – as in the case of restrictions on screentime – quite inadequate for encouraging children to build a healthier relationship with digital technologies. On the other hand, expecting children to reflect on the long-term repercussions of their “temporally distant” online actions can be quite challenging (p. 5). That is why cyber-wisdom education prescribes that children, besides limiting themselves to following rules or appreciating the consequences of their own online actions, need to be taught different virtues, from honesty and compassion to generosity and respect for others – that is, habits of good action for life. But inasmuch as these virtues can clash – which occurs, for example, when an individual is presented with a moral dilemma (e.g., to tell the truth to or hide it from a friend in the name of honesty or compassion, respectively) – users need cyber-wisdom.

Similarly to the Aristotelian concept of *phronesis*, cyber-wisdom functions as a “meta-virtue” that can enable users, through a process of intellectual deliberation, to choose the right course of action in ways that depend on context and align with the ultimate purpose of contributing to human flourishing (p. 4). As operationalised by the Jubilee Centre for Character and Virtues (see, for example, Kristjánsson, Darnell, Fowers, Moller, & Pollard, 2020), the concept of *phronesis*, as in the case of cyber-wisdom, relies on four major components: 1) a constitutive function, which refers to the ability to recognise the ethical aspects of a given situation; 2) an integrative function – the ability to rationally evaluate different ethical situations, especially when these present moral dilemmas; 3) a blueprint of the good life – that is, a vision of what an ethically sound human life looks like; and 4) emotional regulation, which consists of the ability to regulate one’s emotions in ways that align with a rational understanding of what the best course of action might be in a given context.

While the foundations of cyber-wisdom education would be grounded primarily in moral philosophy, they also resonate with moral psychology, which is interested in the cognitive processes that enable individuals to make moral and wise decisions. Research into the virtue of wisdom is experiencing a revival in recent years and our concept of cyber-wisdom draws on this emerging research. Grossman *et al.* (2020), for example, approach wisdom as incorporating metacognitive elements as well as a moral dimension, all of which resonate with some of the aspects inherent in the concept of *phronesis*, as operationalised above. Positioned as such, cyber-wisdom education represents an important and viable weapon in

the fight against online harms, one that should be part of a more holistic approach to educating children about the internet alongside different solutions such as the regulation of digital platforms. Inasmuch as it equips children with the moral and character virtues they need in the digital age, on the one hand, it can support them in dealing with the (il)legal aspects related to the internet (e.g., piracy, plagiarism). On the other hand, it has the potential to guide them in the process of dealing with issues of (in)civility (e.g., online abuse, cyberbullying, the sharing of misinformation, online shaming).

Despite the lack of guidance around what cyber-wisdom consists of and how to teach this via formal education, schools in the UK often tend to teach elements of moral and character education about the internet in ways that overlap primarily with internet safety and digital citizenship education. However, they often do so by privileging deontological, utilitarian or virtue ethical approaches, and without following a common framework (Harrison, 2016b; Dennis & Harrison, 2020). With this in mind and to address this lacuna, since different subjects have something to offer to the teaching of cyber-wisdom, the next section reviews three key subjects of the national curriculum for England in order to identify what these include in terms of subject content, as well as gaps and limitations.

The National Curriculum for England: Three Key Subjects for Teaching Cyber-wisdom

Schools generally fulfil their responsibility to educate about the internet through school activities such as assemblies, days that are dedicated to raising awareness about internet safety (e.g., “safer internet day”), events and communications with parents, and through their teaching. A close inspection of the national curriculum for England reveals that it includes three statutory subjects that would be particularly suitable for cyber-wisdom education.¹ To some extent, these subjects incorporate elements that are relevant to the teaching of moral and character education in the digital age. This section identifies what these elements are, butut, also places emphasis on what is missing from their curricula.

¹ The subject of Media Studies is not included here because, while it is particularly suitable for teaching about both traditional media and digital technologies, is not statutory and is only taken as an optional subject at GCSE and A-levels by less than 10% of students in England (Polizzi & Taylor, 2019).

Computing

Computing, which is compulsory at every Key Stage of the school curriculum, equips students primarily with the practical digital skills and knowledge they need in order to use digital technologies (DfE, 2013b). Not only does it enable students to familiarise themselves with computing terminology, how digital technologies function and the character of networks, but also encourages them to “select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content” (DfE, 2013c, p. 2). To a lesser extent, this subject also aims to teach students how to “use technology safely, respectfully and responsibly”, which requires an ability to “recognise acceptable/unacceptable behaviour” and to seek help and report concerns (p. 2). This aspect of the Computing curriculum relates to internet safety education (“safely”), as acknowledged by the Department for Education (DfE) (2019), to digital citizenship education (“responsibly”), and it has implications for cyber-wisdom education (“respectfully”). Nevertheless, it hardly unpacks what it means for children and young people to use digital technologies with *respect*. The latter is a moral virtue (Jubilee Centre for Character and Virtues, 2017) that is essential particularly, but not exclusively, in contexts of interaction and communication with other users, as in the case of using social media. But what does it really mean to be respectful on social media platforms, which are designed in ways that afford users the ability to spread not just positive but also negative comments at an unprecedented scale? What other virtues need to be deployed in synergy with respect? How should users respond to dilemmas such as that of whether or not (and if so, how) to forgive and respect users who show abusive traits by perpetrating online abuse on platforms like Facebook or Instagram? Similarly, beyond the interactional aspects inherent in using the internet, how should users navigate the tension between respecting copyright laws, on the one hand, and taking advantage of the free nature of most information that circulates online?

The idea of expecting students to “recognise acceptable/unacceptable behaviour” is promising (DfE, 2013c, p. 2). But the guidance offered by DfE on how to teach internet safety seems to suggest that such an expectation relies primarily on the ability to identify “acceptable” versus “unacceptable” behaviour in line with “social norms” that are rather abstract and reminiscent of a deontological (that is, rule-based) approach to moral education (DfE, 2019, p. 7). Such an approach leaves little room for the recognition that users, besides understanding different rules, need to possess not just individual virtues but also the ability to

engage in critical and rational deliberation that can enable them to deploy these wisely depending on context. Finally, while the Computing curriculum places emphasis on the importance of equipping students with the skills and knowledge they need in order to create both digital media content and new digital technologies, what is missing from the curriculum is that digital creation, whether at small or large scale, should occur in ways that are ethically sound and that prioritise the common good. This raises the question of whether the digital environment should be redesigned around the expectation that internet corporations, such as Google and Facebook, should run their platforms in line with principles of transparency and accountability – building, therefore, on the virtue of honesty (Vallor, 2016, p. 121) – as opposed to being driven primarily by commercial interests. This question, however important, is not reflected in the nature of the subject content of the Computing curriculum.

Personal, Social, Health and Economics Education (PSHE)

Since September 2020, two themes of PSHE, which has a wider curriculum, have become statutory across both primary and secondary schools in England. These themes are 1) Health and Wellbeing, and 2) Relationships.² As argued by DfE (2019):

Through these new subjects, pupils will be taught about online safety and harms. This will include being taught what positive, healthy and respectful online relationships look like, the effects of their online actions on others and knowing how to recognise and display respectful behaviour online. Throughout these subjects, teachers will address online safety and appropriate behaviour in an age appropriate way that is relevant to their pupils' lives. (p. 5)

According to DfE (2019), PSHE now serves the purpose of “complement[ing] the computing curriculum” in ways that, again, are relevant primarily to internet safety education and digital citizenship education (p. 5). Besides encouraging a deontological approach to what constitutes appropriate behaviour, both online and offline, the Relationships and Health themes of PSHE, as implied in the recommendations of DfE, is taught in ways that also conform to a utilitarian approach to moral education. When it comes to online abuse, for example, teaching should include not just encouraging pupils to understand “what good online behaviours do and don't look like”, but also “discussing ... potential implications ...

² The third theme “Living in the Wider World” is not included here because it is not statutory.

for victims” (p. 16). Restrictively, however, little emphasis is placed on the importance of possessing different virtues such as honesty, compassion and respect, and both in terms of online abuse and in relation to other areas, from internet fraud to the privacy implications of sharing of online content (pp. 10, 12).

Promisingly, PSHE Association recommends that the Relationships theme of PSHE, as acknowledged in passing by DfE (2019, p. 20), should equip students with virtues that are essential for building “positive healthy friendship[s]” (PSHE Association, 2020, p. 15). These virtues include “mutual respect, trust, truthfulness, loyalty, kindness [and] generosity”, which “apply to online friendships as to face-to-face relationships” (p. 15). What is missing from the curriculum, however, is that while these virtues are crucial to a healthy relationship, they are also not enough. Children and young people need to develop wisdom as a meta quality that holds different virtues together and enables them to put these into practice in ways that are contextually situated. Put differently, they need to be encouraged to reflect more deeply on the ways in which different virtues can be deployed depending on context. This includes an understanding of whether and how different virtues can clash and how to cope with moral dilemmas, from whether to prioritise compassion or honesty when one’s opinions on social media can hurt the feelings of others, to whether, and if so, when, to use social media to show compassion to others as opposed to privileging face-to-face interactions. Navigating these tensions can be challenging for all users and especially for adolescents. This is why, in the digital age, PSHE students need to be taught cyber-wisdom, which requires deliberation that is necessary for choosing the right course of action, and not in individualistic terms but for the purposes of human flourishing more generally.

Citizenship

Introduced within formal education amid concerns about citizens’ declining participation in process of formal politics, Citizenship has been a statutory subject at Key Stages 3 and 4 of the national curriculum for England since 2002 (House of Lords Select Committee on Citizenship and Civic Engagement, 2018, p. 28). Besides contributing to internet safety education, the Computing and PSHE curricula, as reviewed above, promote elements of digital citizenship, understood primarily as the appropriate and responsible use of digital technologies. By contrast, Citizenship, which is statutory at Key Stages 3 and 4, promotes not only elements of media and digital literacy, particularly in relation to the critical evaluation of

media sources and media bias, but also civic literacy – i.e., knowledge about the government and socio-political system – as well as civic engagement (DfE, 2013a). This is encouraged in ways that transcend the digital and relate primarily to community involvement as well as participation in institutional processes, including “democratic structures and processes such as councils, parliaments, government and voting” (p. 5). Only at non-statutory GCSE level does the Citizenship curriculum place emphasis on the fact that students should also understand “how digital democracy [and] social media ... are being developed as a means to improve voter engagement and the political participation of citizens” (DfE, 2015b, p. 6). Little attention, nevertheless, is paid to role of the internet within practices of resistance (from contesting policy decisions online to producing alternative media representing minority groups), and to how these practices, in the digital age, can transcend formal politics in ways that apply more broadly to the sharing of public life through forms of digital storytelling and across blogs or social media platforms.

Across all Key Stages, furthermore, while the Citizenship curriculum privileges deontological and utilitarian approaches to moral education within civic life, it pays little attention to the importance of cultivating virtues, both online and offline, that in the context of participating responsibly in society, and for the purposes of social change, should be not just moral (e.g., compassion, honesty) but also civic (e.g., community awareness, volunteering) (Jubilee Centre for Character and Virtues, 2017). Indeed, as stated in the curriculum for Key Stages 1 and 2, students should learn “why and how rules and laws are made and enforced, why different rules are needed in different situations and how to take part in making and changing rules” (DfE, 2015a, p. 3). In addition, they need to “realise the consequences of anti-social and aggressive behaviours ... on individuals and communities” (p. 3). Promisingly, despite the lack of emphasis on virtue ethics, this subject encourages students to “consider social and moral dilemmas that they [may] come across in life” – dilemmas that may arise, for instance, from contexts of harassment grounded in a misunderstanding of different races (p. 5). What is missing from the curriculum, however, is the recognition that these kinds of dilemmas in the digital age are harder to resolve because of the nature of the digital environment. It is worth emphasising, indeed, that while the networked character of digital platforms affords proximity between different communities, it also exacerbates issues of polarisation because of algorithms that expose users to information that reinforces their pre-existing opinions (Vaidhyathan, 2018). That is why a meaningful approach to citizenship in the digital age should encourage students to develop cyber-wisdom by engaging in processes of deliberation

required to deploy different virtues and navigate both moral and civic dilemmas within online contexts. This means, in practice, that citizenship education needs to be taught in ways that overlap with a virtue ethical approach to moral and character education (see, for example, Peterson, 2020).

Some Suggestions for Revising the National Curriculum for England:

Recommendations and Concluding Remarks

Considering the potential, but also the limitations, of the three key subjects reviewed above in relation to the teaching of cyber-wisdom, what follows here is a set of suggestions and ideas that might in time become more practical recommendations on how to revise the national curriculum for England, as well as a few reflections in terms of teacher training and teaching resources. It should be clarified, first, that while cyber-wisdom education is rooted primarily in virtue ethics, this does not mean that deontological and utilitarian approaches to moral education online should be disregarded. Rather, they should be promoted as a part of a wider framework that incorporates the cultivation of cyber-wisdom as a meta-virtue that, as argued earlier, is necessary for deploying different virtues online with a view to choosing the right course of action, and for the purposes of human flourishing. It follows that cyber-wisdom education should encourage students to develop four different but interrelated aspects (Dennis & Harrison, 2020, p. 10):

1. Cyber-wisdom literacy – an understanding of the nature of different virtues such as compassion and honesty as well as of the ways in which these are important in the digital age.
2. Cyber-wisdom motivation – a desire to act online on different virtues in line with a vision of the common good.
3. Cyber-wisdom reasoning – the intellectual ability to deliberate on how to prioritise different virtues online, particularly when these clash and depend on context.
4. Cyber-wisdom reflection – the practice of reflecting on the moral dimensions of one’s own experiences online in ways that are grounded in affect and align with the process of rationally deliberating on the best course of action.

Considering these four aspects, it is reasonable to suggest that cyber-wisdom education can only be promoted in England as long as the subject content of the Computing, PSHE and Citizenship curricula, given the gaps reviewed earlier, is subject to revision. Empirical research is needed to answer the questions of how to do so and whether a revised national curriculum for England would be effective at teaching cyber-wisdom education. The cyber-wisdom project that is being carried out by the Jubilee Centre for Character and Virtues aims to test the effectiveness of a school programme designed to teach cyber-wisdom, which has implications for the school curriculum and teaching resources. For now, it is sensible to suggest that the subject content of those three subjects could be revised in ways that incorporate the following points:

Computing

- More emphasis could be placed on the ways in which digital technologies can be used respectfully, in what contexts, and on the importance of possessing virtues, besides respect, such as compassion and honesty.
- Students should be encouraged to develop cyber-wisdom literacy as well as a motivation to act, deliberate and reflect on their online actions in ways that are informed by different virtues.
- This could include reflections on the importance of creating digital technologies and redesigning the digital environment in ways that are ethically sound, that prioritise public interests and revolve around principles of transparency and accountability.

PSHE

- Particularly in the context of building healthy relationships online, more emphasis could be placed not just on the importance of possessing virtues such as respect, truthfulness, loyalty, kindness and generosity, but also on the extent to which these virtues can clash and can be deployed differently depending on context and through a process of deliberation.

- This means that besides expecting students to develop cyber-wisdom motivation and literacy, they should also be encouraged to develop cyber-wisdom reasoning and reflection.³

Citizenship

- A more comprehensive approach to civic engagement could be helpful, one that focuses not just on participation in formal politics but also on processes of resistance that can overlap with practices of sharing public life that can be mediated by the internet and require a degree of civility.
- With this in mind, students need to be encouraged to develop cyber-wisdom by appreciating, deliberating and reflecting on the importance of possessing and deploying moral as well as civic virtues with a view to participating actively in society in ways that are underpinned by a motivation to use digital technologies, and not just responsibly but also for the purposes of facilitating social change.

Besides revising the school curriculum, efforts would be needed to ensure that Computing, PSHE and Citizenship teachers are adequately trained in cyber-wisdom education and that they know how to teach cyber-wisdom as part of their subjects. Relatedly, they could be encouraged to use different teaching methods and resources across their subjects. In this respect, we recommend that the following activities may be particularly suitable for teaching cyber-wisdom (Dennis & Harrison, 2020, pp. 10-12; Harrison, 2016, pp. 239-240):

- Use and discussion of narratives and stories aimed at encouraging students to develop a moral sensitivity and imagination of what different visions of the common good

³ The question of how to facilitate the development of cyber-wisdom reasoning and reflection through education is a fundamental one that transcends the scope of this paper. While efforts are currently being made to address this question, a large gap remains in the literature in terms of how to best teach wisdom (see, for example, Grossmann et al., 2020, and Huynh & Grossmann, 2020).

may look like, as well as an understanding of what different virtues entail both in general and in the digital age.

- Use and discussion of moral and civic exemplars. This may include references to historical, as well as contemporary, figures that embody different virtues, along with reflections on whether, how and to what extent these may apply to different online contexts.
- Use of journals and classroom discussions that would enable students to reflect on their own online experiences, including experiences of moral dilemmas.

The task of protecting children and young people from online risks that include, for example, online abuse, cyberbullying, privacy issues and copyright infringements is both challenging and important. It needs to be undertaken in ways that do not deprive them of online opportunities and are mindful of their desire to freely experiment with digital technologies. It also requires different actors to play a role, from policymakers and educators to internet corporations – which have a responsibility to redesign their platforms in ways that are safer for children – as well as civil society organisations that – like Internet Matters (2020) – promote internet safety. Given the pervasiveness of digital technologies within our societies, the education system has a responsibility to teach different aspects of the internet, from digital skills and knowledge to elements of internet safety and digital citizenship. This paper argues that an important element that has remained marginal within formal education, one that should be promoted more cohesively across the national curriculum for England, is cyber-wisdom education.

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