Towards an Integral Human Ecology in the Digital Era

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Introduction

In terms of the breadth and depth of its impact, the digital revolution and all that came with it – the facilitation and acceleration of access, through the internet and connected devices; the ability to track and capture records of billions of users’ online activity; the digitalisation and dematerialisation of commerce; the rise of social networking; machine learning and the rapid progress of artificial intelligence – is probably the most disruptive technological shift in the history of mankind. Unlike great innovations that propelled humankind to greater heights, whether in the fields of medicine, engineering, agronomy, or physics – the internet, combined with advances in computational powers, has also profoundly affected and indeed altered, human behaviour. This difference is what makes the disruptive nature of digital particularly interesting to study from a Christian lens, as Catholic Social Thought aims to assess the essence of such developments from the holistic perspective of the common good, going right to the core of what it means to be human, and not just uncritically from the uni-dimensional perspective of “progress.”

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It is precisely because the penetration of digital technologies – via connected devices and the “internet of things” – runs so deep into the economy, into our daily lives, and into spheres of social interaction; and because its ability to manipulate, control and distort\(^2\) is so complete, that the digital revolution, also known as the fourth industrial revolution, requires a specifically Christian response.

There is a need for urgency, since “humanity today is at a crossroads”\(^3\) owing to the speed at which these technologies have been introduced and are evolving. In many ways, we have been caught unawares by the wholesale changes wrought by the digital revolution – in terms of developing tailored responses in the form of economic, political, and legal frameworks to address its undeniably significant cross-cutting impacts. The scale and scope of spiritual and mental ailments associated with high rates of digital penetration also demonstrate that collectively, the People of God have been poorly equipped spiritually and pastorally to deal with these challenges, including being deficient in the collective cultivation of moral fortitude that is requisite in the digital era.

This contribution from the U.K. Chapter of the FCAPP aims to formulate a specifically Christian response to the manifold challenges the digital era presents by:

1. highlighting the accelerating nature of change that the digital revolution has introduced; and analysing the challenges that these innovations present from spiritual, socio-anthropological and economic perspectives;

2. reviewing the principles of Christian Social Thought (CST) that can be applied to address specific issues and reminding readers of the richness and breadth of the Church’s teaching with regard to technological breakthroughs, including digital technologies;

3. offering some suggestions on what constitutes an ordered use of these new digital technologies according to CST and on how the lay Christian community can be informed, engaged, responsible, courageous and holy actors in the digital era.

\(^2\) The Pontifical Council for Social Communications warns of the ability of the communications media to “be vehicles [propagating] a deformed outlook on life, on the family, on religion and on morality” – *Pornography and Violence in the Communications Media: A Pastoral Response*, Vatican, 7 May 1989, p.1

\(^3\) Message of His Holiness Pope Benedict XVI for the 42\(^{nd}\) World Communications Day, *The Media: At the Crossroads between Self-Promotion and Service. Searching for the Truth in order to Share it with Others*, Vatican, 4 May 2008, p.2
### 1. Facts: What is happening and what are the consequences?

The pervasiveness of the digital revolution is not to be underestimated, which is why the Pontifical Council for Culture has also dubbed it a “cultural revolution”⁴, why Pope Benedict speaks of a “period of vast cultural transformation”⁵ and why Pope Francis has spoken of the “cultural crisis of our time”⁶ at the Plenary Assembly of the Pontifical Council for the Laity in 2013, whose theme was “Announcing Christ in the Digital Age.” Major providers of internet or cloud services expect an explosion in connected devices over the next three years. Intel expects some 200 billion to be in circulation by 2020, an average of more than twenty per person on the planet.⁷ In the West, time spent on connected devices is enormous – 10 hours average per day for Americans⁸ and nearly 9 hours per day for Britons⁹, which exceeds the number of hours of sleep for the average person. The average person logs into their iPhones 80 times per day.¹⁰ The “internet of things” has an insatiable appetite to digitise virtually everything. “Smart” devices are being implanted in everything from household appliances to machinery to motor vehicles, and possibly into humans as well, in the near future (live pilot tests are already underway). The rapid progress of artificial intelligence and robotics is fundamentally changing the way we use and interact with previously inanimate objects.

All of this has immense consequences for the spiritual life, for family life, for social ties and socio-economic organisation, not to mention for the “formation of personality and conscience, the interpretation and structuring of affective relationships, the coming together of the educative and formative phases, [and] the elaboration and diffusion of cultural phenomena.”¹¹ With such dramatic shifts in lifestyle, in the forms of economic organisation and ecosystem of social structures, we need to take stock of what have we gained vs. what have we lost, with the advent of internet. Thus, it is legitimate to ask: what

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⁴ Toward a Pastoral Approach to Culture, Pontifical Council for Culture, Vatican, 23 May 1999, para. 9, p.8  
⁵ Message of His Holiness Pope Benedict XVI for the 45th World Communications Day, Truth, Proclamation and Authenticity in the Digital Age, Vatican, 5 June 2011, p.1  
⁶ Address of Pope Francis to Participants in the Plenary Assembly of the Pontifical Council for the Laity, 7 December 2013, p.1  
⁸ Source: CNN  
⁹ Source: BBC  
¹⁰ Source: Apple  
have been the fruits of these new technologies? Have they drawn us closer to
God? Have they helped us to better express our solidarity with others? Have
they enriched us culturally and spiritually? Have they allowed us to better
express our respective vocations and to develop our human potential? Without
being overly pessimistic, and whilst acknowledging the many positive
characteristics of digital applications, the answer to many of these questions is,
unfortunately, no.

Despite the great potential of digital applications to be used for good, it is
evident, after 25 or so years, that they have contributed to tremendous fragility
in our societies: spiritual and mental fragility, social fragility, economic
fragility, and civil liberty fragility, heretofore unquestioned.

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Having reviewed some of the consequences of all these technological
advances in the digital sphere, the main question from a Christian point of view
is: have they contributed positively to authentic or integral human
development? The broad categories of spiritual, social and economic ailments
deriving from the digital revolution are the clearest sign that something is not
right, either with the nature of some of these digital technologies, or with their
use, or both. Taking stock in a dispassionate manner of these adverse
consequences, deriving from the creation of digital applications is a specific
Christian calling, as “the Church has always had the duty of scrutinizing the
signs of the times and of interpreting them in the light of the Gospel.”

It is against this admittedly bleak backdrop of, paradoxically, an
enhanced human vulnerability in the digital era – which in our view has not
been sufficiently scrutinised, owing to the fact that the spiritual, social and
economic costs of digital are often hidden, lurking under the surface in
corrupted souls, broken homes, weakened minds – that we would like to
propose a combination of policy, behavioural and spiritual responses, inspired
by CST in order to provide a framework for a healthy usage of these new digital
technologies in an ordered way.

12 Pastoral Constitution on the Church in the Modern World Gaudium et Spes, promulgated by His Holiness
(Blessed) Pope Paul VI, 7 December 1965, paragraph cluster 4.
2. Principles: What does CST have to say about the development and use of new [digital] technologies?

In line with her general message of hope, the Church’s position with regard to new technologies is for the most part nuanced\textsuperscript{13} and cautiously\textsuperscript{14} optimistic, subject to certain conditions. She generally recognises the \textit{moral neutrality} of technological innovations,\textsuperscript{15} so long as proper use is made of them,\textsuperscript{16} as “these are not blind forces of nature beyond human control.”\textsuperscript{17} But recognising the positive effects of new forms of communication made possible by technological progress the Church has gone even so far as to call them a “gift from God”\textsuperscript{18} for which we must be grateful\textsuperscript{19}, or a “gift for humanity,”\textsuperscript{20} or even “marvellous technical inventions”\textsuperscript{21} or \textit{inter mirifica}, “among the wonderful,”\textsuperscript{22} which suggests somewhat more than moral neutrality, something more akin to a ‘good’\textsuperscript{23} in absolute terms – a good, which like all fruits of Creation or derivatives thereof developed by virtue of man’s intelligence, must be oriented towards the true, the good and the beautiful, all of which is summarised in the person of Jesus Christ. It is our vocation to make “creative use of the new

\textsuperscript{13} Pope Benedict XVI for example speaks of the “extraordinary potential” of the media following their “meteoric technological evolution,” but he also warns of “hitherto unimaginable questions and problems” associated with their genesis. Message of His Holiness Pope Benedict XVI for the 42\textsuperscript{nd} World Communications Day, \textit{The Media: At the Crossroads between Self-Promotion and Service. Searching for the Truth in order to Share it with Others}, Vatican, 4 May 2008, p.1

\textsuperscript{14} Not least because of the human proclivity to sin. But also because in the face of rapid technological progress like the digital revolution, its “full implications are as yet imperfectly understood.” – \textit{The Christian Message in a Computer Culture}, Message of the Holy Father John Paul II for the 24\textsuperscript{th} World Communications Day, 27 May 1990, p.2

\textsuperscript{15} However, it is critically important to distinguish between the moral neutrality of the technology behind contemporary communications channels, as opposed to the moral neutrality of humans participating in the act of communication, whether written, verbal or digital. Whereas the former is a generally held position by the Church, the latter is not, because human communication is, by definition, a “moral act”\textsuperscript{***} according to Saint John Paul II, quoting Saint Matthew 12: 35-37 - ***Apostolic Letter \textit{The Rapid Development} of the Holy Father John Paul II to those responsible for Social Communications, Vatican, 24 January 2005, p.7

\textsuperscript{16} “It is not technology which determines whether or not communication is authentic, but rather the human heart and our capacity to use wisely the means at our disposal.” Message of His Holiness Pope Francis for the 50\textsuperscript{th} World Communications Day – Communication and Mercy : A Fruitful Encounter, p. [FIND IT]

\textsuperscript{17} \textit{Ethics in Communications}, Pontifical Council for Social Communications, 4 June 2000, p.1

\textsuperscript{18} Quote Francis, Benedict and JP II here. Pope Pius XII in 1957 Encyclical Letter \textit{Miranda Prorsus}, or

\textsuperscript{19} \textit{The Christian Message in a Computer Culture}, Message of the Holy Father John Paul II for the 24\textsuperscript{th} World Communications Day, 27 May 1990, p.3


\textsuperscript{21} Apostolic Letter \textit{The Rapid Development} of the Holy Father John Paul II to those responsible for Social Communications, Vatican, 24 January 2005, p.1

\textsuperscript{22} Decree on the Media of Social Communications \textit{Inter Mirifica}, Promulgated by His Holiness Pope Paul VI, Vatican, 4 December 1963.

\textsuperscript{23} “The internet, in particular, offers immense possibilities for encounter and solidarity. This is something truly good, a gift from God” – Message of Pope Francis for the 48\textsuperscript{th} World Communications Day, \textit{Communication at the Service of an Authentic Culture of Encounter}, 1 June 2014
discoveries and technologies for the benefit of humanity and the fulfilment of God’s plan for the world.”²⁴ We ought not to be afraid of them.²⁵

However, the Church also recognises the dangers that certain technologies or their disordered use present for the common good. Our constant quest for progress is symptomatic of a kind of messianic humanism where man, making a false god of human reasoning, believes he is the sole master of his own destiny and can solve all the world’s ills, to the extent of replacing the City of God with the Temple of Man. This disordered quest to engineer his own (temporal, as opposed to eternal) salvation pushes man, under the pretext of ‘humanism’ and ‘progress,’²⁶ to experiment ever further, without proper discernment or prayer, mixing an explosive cocktail of genetics, life sciences, robotics and digital that today threaten the very substance of the human species.²⁷

Thus, human dignity becomes secondary, and indeed almost considered an obstacle to, the messianic objective of achieving linear scientific progress over time. Believing that everything that is technically feasible is licit²⁸ is a materialistic and utilitarian ideology that has been condemned by the Church²⁹ and which arises from the false enlightenment first experienced by Adam and Eve, when (mis-)guided by their reason, they betrayed their own consciences and the second commandment of their Creator. This mindset has formally been condemned by the Churchː “not everything that is technically possible is also ethically permissible.”³⁰ Original sin often clouds our judgement and hardens our hearts as their descendants, and our development of new technologies is no exception. New technologies are not always morally neutral, especially if they

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²⁵ Apostolic Letter The Rapid Development of the Holy Father John Paul II to those responsible for Social Communications, Vatican, 24 January 2005, p.8
²⁶ “Any purely intra-worldly ideology of progress [is] contrary to the integral truth of the human person and to God’s plan in history” - Compendium of the Christian Social Doctrine, para. 48.
²⁷ Pope Benedict XVI cautions that certain forms of technological innovation can “open[.] up appalling possibilities for evil that formerly did not exist.” Encyclical Letter Spe Salvi, Pope Benedict XVI, 30 November 2007, para 22.
²⁸ “When technology disregards the great ethical principles, it ends up considering any practice whatsoever as licit...A technology severed from ethics will not easily be able to limit its own power.” – Pope Francis, Laudato Si, para. 136
²⁹ Message of His Holiness Pope Benedict XVI for the 42nd World Communications Day, The Media: At the Crossroads between Self-Promotion and Service. Searching for the Truth in order to Share it with Others, Vatican, 4 May 2008, p.2
³⁰ Message of His Holiness Pope Benedict XVI for the 42nd World Communications Day, The Media: At the Crossroads between Self-Promotion and Service. Searching for the Truth in order to Share it with Others, Vatican, 4 May 2008, p.2
have been deliberately designed to engineer evil outcomes, or if the way they have evolved lead to the seduction, manipulation or corruption of the human mind and soul, or if their primary purpose is to perpetuate injustice and suppress the vulnerable.\(^{31}\) The Church is very much aware of these dangers, and her teachings are clear in warning us of the “new violations of human dignity and rights”\(^{32}\) that new technical capabilities can introduce.

However, this does not mean the Church is recommending wholesale or even partial withdrawal from the digital universe. On the contrary, Pope Francis explicitly calls for us to “boldly become citizens of the digital world,”\(^{33}\) stating that the drawbacks and potential evil uses of these applications “do not justify rejecting social media,”\(^{34}\) not least because “the digital highway is […] a street teeming with people who are often hurting, men and women looking for salvation or hope.”\(^{35}\) The Church’s doors must remain open to people who have lost hope, and meaning, and love, and faith, but they also need to be “ke[pt] open in the digital space.”\(^{36}\) Neither are inanimate digital networks seen as the nemesis, because “it is not technology which determines whether or not communication is authentic, but rather the human heart and our capacity to use wisely the means at our disposal”\(^{37}\) Furthermore, “the digital world can be an environment rich in humanity--; a network not of wires but of people.”\(^{38}\)

The Church’s nuanced view on technological developments, including digital applications, derives not only from the careful consideration she has given to these matters, but is a natural by-product of the wisdom with which she is endowed by the grace of the Holy Spirit as the Bride of Christ; of her natural intelligence as an “expert in humanity”\(^{39}\) and as an apologist for human dignity;
of her extensive pastoral experience; and of her presence “in the very midst of human progress, sharing the experiences of the rest of humanity, seeking to understand them and to interpret them in the light of faith.” Boasting these unique qualities, the Church has not only the right but also the duty to opine on these matters, given that more advanced technologies amplify the consequences of moral choices. The digital revolution is no exception.

So what constitutes “progress” from a Christian perspective and how are we meant to make judgments? Unlike in the scientific world, any advance in mechanical, computational, or scientific prowess is clearly not a sufficient condition for progress, and perhaps not even a necessary condition. In his Encyclical Redemptor Hominis, John Paul II brought to life the abstract concept of the ‘common good’ with regard to technological progress by offering a compelling litmus test: are these new technical abilities leading the human person to “becom[e] truly better, that is to say more mature spiritually, more aware of the dignity of his humanity, more responsible, more open to others, especially the neediest and weakest, and readier to give and to aid all”. This litmus test is but one instrument in the rich toolkit of resources the Church puts at our disposal to be informed, engaged, responsible, courageous and holy actors in the digital era.

Importantly, the Church does not view herself as an outsider to these developments, but rather as an important and active participant, which can help to influence the ordered use of new technologies. To this end, Pope Francis has considered the Church’s online presence [to be] “indispensable” , Pope John Paul II admonished that the Church “cannot fail to be ever more deeply involved in the burgeoning world of communications” and the Pontifical Council for Social Communications suggests that “hanging back timidly from fear of technology…is not acceptable.” Rather than fighting a rear-guard battle against technology and condemning it as evil, from the time of the chariot through to ships, the printing press, and rocket science, the Church always

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41 “Great good or great evil come from the use people make of the media of social communication” – Ethics in Communications, Pontifical Council for Social Communications, p.1
42 Encyclical Letter Redemptor Hominis, His Holiness Pope John Paul II, Vatican, 4 March 1979, para. cluster 15, p.18
43 Address of Pope Francis to Participants in the Plenary Assembly of the Pontifical Council for the Laity, 7 December 2013, p.2
44 “Preach from the Housetops: The Gospel in the Age of Global Communication”, Message of the Holy Father John Paul II for the 35th World Communications Day, p.1
45 The Church and the Internet, Pontifical Council for Social Communications, Vatican, 22 February 2002, p.6
seized opportunities to use human innovations to preach the Gospel, as expressed in the conciliar document *Gaudium et Spes*. This will explain why, despite the evident spiritual dangers that are associated with them, the Church will “avail herself of […] computer and satellite technology” and recognises the “ever new and far-reaching pastoral opportunities” it offers.

3. Action: How can the Christian Social Doctrine guide the laity to help them engage with technology companies and inform the public debate?

Using Saint Pope John Paul II’s call for us to (1) form ourselves, (2) participate in – as opposed to withdraw from – the challenges of our times and (3) dialogue, we would like to propose a few suggestions towards becoming more informed, engaged, responsible, courageous and holy actors in the digital era.

1) Make known the Church’s (relatively unknown) teachings on technology and digital technologies. We hope this paper can make a substantial contribution to that effort, but we recognise that there isn’t to our knowledge a readily accessible, easy to digest guide on the Church’s teachings on digital, transhumanism, and the like.

2) Enter into a more active and effective dialogue as a Church with Silicon Valley and the technology companies that are driving wholesale changes to our culture and personal habits (e.g. Amazon, Google, Facebook). We need to enter into a dialogue with them and expose them to the message of CST with regard to digital technologies, so that they will hopefully be swayed by some of the unquestionably sound ethical principles underpinning it, and at least some of which they will hopefully apply to their business practices in the development, distribution, maintenance and operation of digital devices, platforms and networks. Given their lobbying efforts to shorten the working week in order to stem the

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expected flood of job displacement by automation, a good starting point might be to sensitize them to the theological value of work. As Christians, we don’t only work to earn a living. Work, from a Christian perspective, has the dual purpose of allowing persons to express themselves productively, to develop their talents and their human but it also has the redemptive character of struggle, of achieving through effort, not because man can save himself through his own toil, but because this following the fall of Adam, work can contribute to redeeming qualities in humankind.

3) Recognise the importance of an intense prayer life, and commit to cultivating it through regular spiritual exercises, as it is “thanks to the Redemption” that the “communicative capacity of believers is healed and renewed”\textsuperscript{50} and the “Eucharistic encounter” is the most perfect form of communication, the moment at which communication becomes “full communion”.\textsuperscript{51} And ultimately, the nature and use of digital technologies are a communication problem that must be solved. The breadth and scale of some of the challenges awaiting humanity in the 21\textsuperscript{st} century are such that despite our efforts, many of them will only be resolved through prayer and the liturgical framing of everyday life – whether in monasteries, lay communities or beyond.

4) More active political engagement to make our elected officials aware of the stakes of some of the technological developments, particularly the dangerous consequences of unbridled experimentation with artificial intelligence and insufficient regulatory control over the activities of the transhumanist movement.

5) Requesting clearer pastoral guidance on what constitutes an “ordered use” of these technologies – apart from just the notion of avoiding of sin or occasions of sin.

6) Developing methods for a wholesale digital “detox”, not by operating new-age fitness camps but through a rediscovery of the faith and more active community participation, whether religious, volunteer-based,

\textsuperscript{50} Apostolic Letter \textit{The Rapid Development} of the Holy Father John Paul II to those responsible for Social Communications, Vatican, 24 January 2005, p.3
\textsuperscript{51} Apostolic Letter \textit{The Rapid Development} of the Holy Father John Paul II to those responsible for Social Communications, Vatican, 24 January 2005, p.3
political, athletic, or cultural. Contributing to the regaining of a sense of wonder, of divine mystery through e.g. the liturgy, and regaining contact with the natural, physical world after being so consumed by the digital world by drawing upon the many positive facets of monastic life: regular schedules, simple and natural food, manual work, regular contact with nature, etc.

7) Rediscovery of silence, which Pope Benedict XVI has characterised as a “privileged state” recognized as such by other religions and the rediscovery of the virtues, many of which we would no longer be able to name by reading the Catechism of the Catholic Church, forming our minds; and practising virtue. In a fast-paced digital era, the virtue of patience is probably one of the most vulnerable. Our whole salvific history is a story of waiting. We say at each mass during the Communion Rite: “as we wait in joyful hope for the coming of our Saviour Jesus Christ”. And patience is intrinsically linked to the theological virtue of hope.

52 Message of His Holiness Pope Benedict XVI for the 46th World Communications Day, Silence and Word : Path of Evangelisation, Vatican, 20 May 2012, p.2