

# TECHNOLOGY, THEOLOGY, AND SPIRITUALITY IN THE DIGITAL AGE

by *Antje Jackelén*

*Abstract.* Digitalization and the development of Artificial Intelligence (AI) will bring about substantial changes in all aspects of life. This happens in a world marked by the poisonous synergy of five Ps, polarization, populism, protectionism, post-truth, patriarchy, as well as an ambiguous interplay of secularization and new visibility of religion.

If development of AI is to be beneficial for people and planet a number of challenges must be met. In this regard, religion-and-science dialogue needs improvement in making things not only intellectually but also spiritually fit. Ethics should be involved from the beginning rather than being called upon first when problems arise. Faith communities have a prophetic, diaconal, ethical, and theological role.

Based on the characterization of life as a fourfold web of relationality, personal, social, political, as well as global issues are identified and discussed. These include mental health disorders, addiction, manipulation, and self-exploitation. Reflections on leadership suggest resilience, coexistence, and hope as theological key components for navigating the uncharted realms of the digital age.

*Keywords:* AI; democracy; five Ps; leadership; patriarchy; polarization; populism; post-truth; protectionism; spirituality

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## SETTING THE SCENE: A FIVE P WORLD AND THE DYNAMICS OF RELIGION AND SECULARIZATION

When it comes to the religious landscape, we have been seeing two tendencies for the last three decades or so: the spread of secularization on the one hand, and “the return” or new visibility of religion on the other hand. Although apparently contradictory, these trends occur simultaneously. Moreover, both trends are ambiguous. The new visibility of religion may enhance tolerance, inspire multifaith initiatives and interfaith dialogue. At

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Antje Jackelén is the Archbishop of the Church of Sweden, Uppsala, Sweden; e-mail: [archbishop@churchofsweden.org](mailto:archbishop@churchofsweden.org)

the same time, it may put the realization of freedom of religion to the test. The propagation of atheism may turn out as a self-fulfilling prophecy in terms of an accelerating secularization and deepen religious illiteracy, thus undermining tolerance and cultural understanding. Describing religion as dangerous may enhance the quality of criticism and self-criticism in and between religious traditions but might as well just reinforce prejudice and amplify stereotypes.

These complex dynamics make for a fascinating time with demanding challenges and exciting possibilities for religious leaders, as well as theologians and scientists who do not share the conflict view of religion and science. On the one hand, not least in the wake of the COVID-19 pandemic, we are witnessing a new interest in existential and religious questions, though often in combination with much ignorance about religious traditions. On the other hand, we are witnessing new fierce attacks on religion. The base line of argument is that religion is irrational and prone to violence—as terrorist attacks as well as the oppression of women and lesbian, gay, bisexual, transgender, queer and intersex (LGBTQI) persons seem to suggest; therefore religion ought to be combated and should be deprived of any influence whatsoever on society.

Increasingly so, during the last decade, these dynamics have intersected with major social and political challenges. In many countries of the world, people are drinking from a dangerous cocktail made up of poisonous ingredients, all starting with the letter P: polarization, populism, protectionism, post-truth, and patriarchy. Obviously, patriarchy is not as much a sign of precisely our times as the others are, because it has been around throughout much of human history; nevertheless, it also develops a specific synergy with the other Ps.

*Polarization* tears apart whole societies as well as smaller communities. This happens via increasing income gaps, as well as gaps in education and health status. We see growing polarization between political blocks, between generations, and between urban and rural areas. All of this provides a fertile ground for populism. *Populism* draws its energy from pitting people against each other. Populists claim that they are the voice of the people—that according to populist narratives is supposed to have just this one voice, a voice that speaks out against the elites. And they put their own people above all other peoples, thus promoting nationalism. In the so-called Christian West of Europe, they urge the churches to become part of the nationalist, anti-Muslim, and (beyond the surface) even anti-Semitic project. If the churches resist, they are accused of no longer being Christian but having become political.

*Protectionism* is one of the consequences of populism. It puts one's own group, nation or country first, at the expense of common interests. Protectionist campaigns have become known to build on lies, which bring us to *post-truth*. The insight that democratic elections or referendums can

be won even though the facts are wrong and key campaigners are lying is quite shocking, if democracy is the way of governance that we want to promote and defend. According to moral standards, a person who is found out to have lied should be ashamed, confess, and do better. When a person found out to have lied instead displays shamelessness, proceeds with even more lies, and wins—this shakes some of the foundations of democracy, because democracy can only work if there is some level of consensus on values, such as a reasonably honest culture of debate, equal participation, respect of human rights, and accountability not only to voters but also to moral values.

*Patriarchy*, finally, is a disturbing background noise throughout history. Although progress in gender equality has been made, not least during the twentieth century, we hear about backlashes in many places. Societies and communities with gender equality do better than others, yet there still is old resistance and even new resistance. Historically, faith communities are known to not always have championed gender justice and are not always promoting it nowadays either. On the basis of God creating the human person in God's image, and in light of the Apostle Paul's word in Galatians 3:28—there is no longer Jew or Greek, there is no longer slave or free, there is no longer male and female; for all of you are one in Christ Jesus—objecting to gender justice is a deviation from Scripture, at least in the Jewish and Christian traditions. Even other religious traditions have notions of equality in their scriptures and teachings that all too often have been silenced by patriarchal patterns. Faith communities should see gender justice as part of their mission in today's world. Gender justice is a win-win concept; there are ample data showing that its implementation is conducive to progress on many, if not all the Sustainable Development Goals (SDGs). Theologically speaking, counteracting gender justice and supporting misogynist practices in the name of freedom of religion or belief, as it still happens today, even in the context of the UN, is a sin.

Drinking from the poisonous cocktail of the five Ps often leads to behaviors that manifest themselves as being against refugees and migrants, against climate action, and against equality and gender justice. In contrast, the Bible frequently talks about justice. It talks about care of creation that has been entrusted to us. Caring for the stranger is at the heart of the biblical love command.

The five Ps discourse tends to promote static ideals, building on presumed glories of the past, like make America/Europe great again and keep women in their traditional roles. Theology, in contrast, should never be occupied with the past only, but pay attention to dynamic promises, oriented toward a future that is understood as *adventus* rather than *futurum*; it is about God coming toward us from the future (advent), rather than an extrapolation of the future from that which we already know (*futurum*).

The need to counteract the poisonous and dangerous cocktail of the five Ps sets much of the scene as we enter the digital age in more and more areas of life. Addressing this need requires religion and science to become what I would like to call more spirituality savvy.

#### SPIRITUALITY: A CHALLENGE FOR SCIENCE AND RELIGION DIALOGUE

Here, my point is that we need to rethink science and religion more deliberately from the perspective of spirituality. This will provide an alternative to rigid rationality on the one hand and boundless relativism on the other hand and help to navigate the mixed waters of secularization and religion.

Let me elaborate this a little further, by comparing Western and Eastern Orthodox tradition. Western Europe and Western Theology have been deeply shaped by two intellectual movements that did not affect Eastern Orthodox theology in the same way, namely Renaissance Humanism and the Enlightenment. The ensuing reverence for reason (*ratio*) led to a preference of rationality over mystery—not only in secular knowledge, but also in theological discourse. Where Occam's razor and reductionism became the hallmarks of rationality, concepts such as mystery and divine energies became almost obsolete, or at least much less attractive. Consequently, in much of Western thought we find ourselves reasoning in terms of mystery *versus* rationality and not mystery *and* rationality. In the long run, however, any one-sided diet whatsoever is not healthy for an organism. A one-sided rational or secular diet makes for a rather pale organism. People start looking for colorful dietary supplements somewhere else, which often opens the door for plain irrationality instead.

Most of the time, we who are engaged in religion and science dialogue are interested in making things *intellectually* fit. We struggle to find a coherent and adequate language that reflects the progress of science, while at the same time allowing for the truthful communication of a theologically sound worldview. We are willing to accept a certain level of tension between the two areas, but we are not willing to accept plain contradiction between them. Making things intellectually fit is important. Yet, as necessary and desirable as this is, it is not enough.

People want and need to see that things fit also spiritually. While in no way wishing to diminish the significant contributions to religion-and-science dialogue of the last 60 years or so, I also want to point out that we have a tendency of still falling short. If religion-and-science dialogue is to make a difference in the digital age, it must become both intellectually and spiritually fit in ways that surpass what we have for now.

The current cluster of crises in the world underlines this challenge. It might be the case that proneness to embrace conspiracy theories is

enhanced by the lack of a religion-and-science-discourse that is not only intellectually sound but even spiritually sound.

What transcends rationality is not automatically irrational. Rationality is no longer as clear cut in either-or-terms as the modern mind liked to believe. There is more of both-and thinking. And more of an understanding that both-and is not necessarily the same as compromised truth claims, while at the same time, both-and is not a license for undisciplined and sloppy thinking. It is worthwhile to recall the distinction between *ratio* and *intellectus*. Inspired by fifteenth-century scholar in philosophy, theology, law, mathematics, and astronomy, Nicholas of Kues (Cusanus), I see ratio as the calculating, planning, and controlling part of the mind. Thus, ratio takes us a long way in leading our everyday lives. Intellectus is the part of the mind that is associated with insight and wisdom. It is by virtue of intellectus that we—intelligibly—can relate to the unknown, both in terms of the not yet known and the un-knowable. Hence, knowing the unknowable precisely as unknowable is an intellectual achievement.

I want to suggest that a widened understanding of the endeavors of thought to include spiritual dimensions is critical in the digital age. It is only the togetherness of ratio and intellectus, or of brain and heart, metaphorically expressed, that makes for an adequate understanding of a person as well as for smart organizations.

#### THE DIGITAL AGE: WE ARE UP FOR SUBSTANTIAL CHANGES

The Christian tradition has been crucial in forming the value systems of those societies that for centuries have been at the forefront of scientific and technological development. Even in a globalized and more pluralistic world, we see the influence of Christian tradition on the questions we ask, the qualms we experience, and the solutions we seek.

Christianity is basically a science-affirming and a technology-friendly religion. Because whatever helps people to thrive, whatever alleviates suffering, whatever is good for the most vulnerable is a sign of the realm of God. If engineering serves these purposes, it makes for both meaningful and responsible change. Both these words, meaningful and responsible, reflect deeply humanistic values. You are responsible in response to another, you respond to the words, the glance, the gestures, the emotions, the needs or demands of the other. Relationality is the basic tenet of life.

In fact, life is relationality. As persons we relate to the rest of nature, as actors as well as dependents—dependent on the rest of natural creation for each and every breath we take. For our survival we also need a second relation, namely to our neighbor, our fellow human beings—realizing that we ought to build a world of neighbors, since, as the COVID-19 pandemic has shown us, we are one humanity under one sky. Moreover, we need to relate to ourselves in healthy ways. And on top of that, as humans we have

never stopped seeking a relationship with the transcendent, that which is beyond the tangible and knowable, beyond the calculable and scalable. We call it sacred, holy, God—a relationship that expresses our need to focus on and beyond the horizon in order to understand and make meaning of what for us lies in front of the horizon.

In short, human life is marked by relation to nature, each other, self and the transcendent, which makes a fourfold web of relationality. How then does this fourfold web of relationality thrive in the era of the world wide web? How will it thrive in the age of AI?

The enormous possibilities of AI are accompanied by huge excitement, and rightly so. However, the greater the possibilities the greater the need to ask critical and self-critical questions. What does AI do to our human self-understanding? Who is benefitting in the short run and in the long run? Who is paying the price—in the short term and in the long term? How will AI be good for “the little ones,” those, who Jesus used to move to center stage—knowing that what is good for the little ones is often good for the big ones as well? How will it serve the fourfold web of relationality?

Ethics must be part of the discussion right from the beginning. It is not good enough to just follow the trail and call upon the ethicist only to fix the problems we inevitably will run into. If we want to build and maintain democratic societies that are good for their citizens, ethics must be part of the whole journey. Ethics is a starting point and needs to be considered throughout the whole process and lifecycle of an AI algorithm.

Theologians can be of help here. Via their methods, they are trained to connect the dots—in relating to complex issues and ethical reasoning over the long haul. In times of profound and rapid change, we must be particularly mindful of our history. Because people who lose or are deprived of their history also lose out on their future. Periods of great transition require spiritual resilience from individuals as well as from societies. And we know that we are up for substantial changes. As the chair of one of the biggest Swedish companies puts it: For some time now, we have worked with a 10/50 rule, which means, in 10 years, 50 % of the things we are doing now, we will no longer be doing.<sup>1</sup>

This is indeed time for joint transdisciplinary reflection on how AI develops and will affect people’s lives, societies around the world, and the planet as such. This reflection needs to come to fruition in the shape of comprehensive and widely accessible education regarding these issues. Otherwise, we might very soon find democracy under serious attack.

#### WHAT SHOULD WE BE AWARE OF?

In terms of critical and self-critical accompaniment of AI development, we should be aware of a number of issues. Without claiming to be exhaustive, I will briefly discuss some of them.

Generally speaking, digitalization and the development of AI force us to rethink common concepts such as trust, society, communication and manipulation, human relationships, work, death, personal integrity, and privacy. The shift in the labor market from “more people means growth” to “more data means growth” is momentous. In fact, we will ask anew: what then is a human being, and, like Pontius Pilate, we will also need to ask: “What then is truth?”

#### PERSONAL ASPECTS

Technological development is driven by the pursuit of perfection. Human creativity is driven by the experience of imperfection and finitude combined with the imagination of a wholesome future. This makes for an interesting tension. It is this tension that provides the soul of engineering with its energy. Will AI and digital perfection level out the creative tension between imperfection and imagination of the wholesome—and thus extinguish the creative energy that fuels the soul of engineering? While such a scenario may still be a considerable distance down the road, human personality has already been influenced if not reshaped by the connectivity of the world wide web.

Regarding today’s new forms and new scope of connectedness, we must ask: has evolution really equipped us to examine what thousands of people think of us—which is what we do when we count likes on Facebook, Instagram, and Twitter? How then do we hold on to what we would say is our authentic self? How big a gap is there between our authentic selves and our digitally brushed-up self-representations? And if that brittle social media popularity breaks down, what is going to fill the void?

Software engineer Justin Rosenstein who helped create the Facebook “Like” button says: “When we were making the Like button, our entire motivation was ‘Can we spread positivity and love in the world?’ The idea that ... teens would be getting depressed when they don’t have enough Likes, or it could be leading to political polarization, was nowhere on our radar.”<sup>2</sup>

That good intentions can lead to bad consequences is nothing new. That has been the case ever since the gates of paradise closed behind Adam and Eve. Yet, in the digital world, the effects can keep spiraling on forever, without much of an opportunity to haul things back in and make them better.

We have learnt that social media technology impacts human interaction and self-esteem. This technology tends to reduce us to users and products. People are dehumanized and human dignity gets jeopardized. The technology that connects us also manipulates us, polarizes us, controls us, monetizes us, and distracts us. Constantly and freely we share data about our most personal choices—without control of how they are used.

We are ending up in self-exploitation, as German-Korean philosopher Byung-Chul Han has observed.<sup>3</sup> It is the feature of self-exploitation that is so risky! Oppression of freedom provokes resistance; exploitation of freedom does not.<sup>4</sup> Rather than getting together with others to act for change, the result of this exploitation is self-aggression: we direct the aggression against our own self.<sup>5</sup> Big Data can become an efficient psychopolitical instrument, intruding on a person's psyche without the person even noticing it. Total transparency is a mark of this development.<sup>6</sup> The theological question to ask is: can total transparency as an ideal ever be reconciled with the experience of transcendence, which we have identified as a vital part in the fourfold relationality that marks human life?

Already in 2010, Nicholas Carr, author of the book *The Shallows* and a number of subsequent ones, stated "Over the last few years I've had an uncomfortable sense that someone, or something, has been tinkering with my brain, remapping the neural circuitry, reprogramming the memory. My mind isn't going—so far as I can tell—but it's changing. I'm not thinking the way I used to think."<sup>7</sup>

Our human emotions and fears are monetized; people are turned into products. Or as Jaron Lanier puts in the documentary "The Social Dilemma": "It is the gradual, slight, imperceptible change in your own behavior and perception—that is the product."

### SOCIAL ASPECTS

Never before has a small group of designers, pretty young white guys in Silicon Valley, had the power to influence how billions of us think, act, and live our lives. Technology is changing what you do, how you think, who you are—and constantly tracking the slightest changes. Surveillance capitalism emerges as a new kind of marketplace. The merchandise are we. It is a trade in human futures, to use Shoshana Zuboff's expression.<sup>8</sup> Our attention as a gold mine—allowing our minds to be mined.

One might say that we are moving from a tool-based economy to a manipulation- and addiction-based economy. It goes without saying that this has implications for democracy. To put it bluntly: if the digital age were to be synonymous to an age of disinformation, democracy would be bound for death.

When online connection is priority number one, there will be consequences for the four-dimensional relational web that I earlier described as the hallmark of life. Studies have found a significant increase in mental health disorders in teenagers that coincide with the introduction of the cell phone.<sup>9</sup> The total number of teens who recently experienced depression increased 59% between 2007 and 2017. The rate of growth was faster for teen girls (66%) than for boys (44%).<sup>10</sup> Those born after 1996 are



more likely to have experienced anxiety, self-harm, depression, or the risk of suicide.<sup>11</sup>

Have we all become dependent on digital pacifiers? If we are reduced to being users and products or merchandise, democracy is indeed under attack. Citizenship needs to be rediscovered. Rather than by consuming, citizenship is marked by participating and contributing. Its hallmark is dignity rather than value.

Already in the design or concept stages of AI, the risk of bias is obvious. Self-driving cars and the moral machine experiment (MIT)<sup>12</sup> have demonstrated that ethics differs across cultures and groups in society. Who decides which ethics should be guiding the development? Again, this underlines the necessity of working multidisciplinary and cross-sectoral, since AI-developers rarely represent a diversity of groups and people, nor are they ethicists.

Another risk is that the technological development is so complex that few “own” it and understand it—and at some point, there may be no human at all who understands it. How then can we ensure that a particular AI is serving the greater good? How can end users have trust? Will we end up with an apartheid system based on AI?

Here, the joint work in the European Union—Trustworthy AI—based on fundamental values and freedoms and the cooperation across EU Member States is relevant.<sup>13</sup> It is meant to help the EU to develop its own approach to AI development and application relative to China with its focus on control of citizens and to the industry led development in the United States. According to the EU, trustworthy AI needs to aim at a better society and better lives for all.

#### POLITICAL ASPECTS

The poison of the five dangerous Ps, polarization, populism, protectionism, post-truth, and patriarchy, deeply affects the world. It disfigures the vital triad of the true, the good and the beautiful, without which we cannot live. It deprives the world of the full flourishing of women and children, and in the end, it dehumanizes women as well as men. Each of the five Ps reveals a surplus of fear and a deficit of hope.

AI can easily add some further spices to this toxic cocktail. Relevant examples range from *Cambridge Analytica* and the attempts to manipulate elections, to the role of Facebook in the genocide against the Rohingya people in Myanmar and Google’s way of handling the Chinese censorship. Responsibility and accountability are not straight forward in these cases. Adaptation of legislation is required. Attention must be paid to ethics and trust. Anti-democratic uses of algorithms pose challenges not only to the scientific and technological literacy of the world’s population, but also its social, moral, and spiritual literacy.

## GLOBAL ASPECTS

Trust may well be the ultimate currency for the future. The question of trust will be relevant to how successful we will be in putting AI to the service of handling the climate crisis, for example.

We need AI development to be human-centric, or else we will be facing a dystopic future. I am deliberately using the word human-centric rather than anthropocentric. Anthropocentrism has been a driving force in the exploitation of our natural environment and thus instrumental in bringing about a host of environmental crises and climate change. By human-centric, I mean centered in humanistic values about human dignity and rights and resolved to bring the fourfold web of human relationality into flourishing: relation to creation, fellow-humans, our own self and God/the transcendent.

For this to happen, we need lots of “soft skills,” but also laws and regulations to ensure that all technical development serve people and planet. Otherwise, we might see a concentration of intelligence in terms of fewer being intelligent indeed. In the long run, this would mean more than losing a lot of jobs, as serious as that is, but also losing intelligence overall.

## WHAT ABOUT LEADERSHIP IN THE DIGITAL AGE?

In general, being a leader is more than being a manager. To put it a bit simplified: Being a manager is about a position, being a leader is based on relationships. A leader must have a holistic view of people and things, be visionary, build trust, cultivate hope and lead through times of uncertainty.

A good leader should honor the role of civil society. Massive changes imply the need to revisit concepts such as work, consumption, welfare, fairness, equality, democracy, and so on. This requires trans-disciplinary dialog in order to build up resilience. The time is gone when science, technology, and economics could do their own thing, with the humanities pushed to the margins. We need to navigate in a landscape where good leaders must be equipped with four equal sets of skills: technical and economical know-how, political realism, social responsibility, and spirituality.

This, in turn, requires more than excellent training. It requires a comprehensive education, *Bildung*—the connection between brain and heart, if you so will. This also includes religious, spiritual, literacy, since, as I mentioned before, the “beyond the horizon” has a role in helping us to understand and live life “in front of the horizon.”

The church has multiple ways of exercising its ministry in this context. It has a prophetic role in seeing and giving voice to those who do not benefit from the development. It has a diaconal role in supporting, listening and helping. It has an ethical role in initiating and taking part in relevant conversations. It has a theological role in raising the

questions that are rarely being asked and in providing a ground for a robust spirituality. As part of this ministry, Anglican Bishop Steven Croft from Oxford, England, has framed 10 commandments for AI development. These commandments emphasize that AI should be designed for all, and benefit humanity. The application of AI should be to reduce inequality of wealth, health, and opportunity. Moreover, AI should never be developed or deployed separately from consideration of the ethical consequences of its applications.<sup>14</sup>

Let me conclude by briefly outlining a theology and spirituality that will be important to orient ourselves in the yet uncharted realms of the digital age. I call it a spirituality of resilience, coexistence and hope.

#### A SPIRITUALITY OF RESILIENCE

A spirituality of resilience will enable us to make sense of the fights of women and men for the health, well-being, and future of their children. It is a way of again and again drawing God's mercy into this world with words and actions. Be it words of prayer and words of advocacy for human rights, equality, peace, justice, and reconciliation. Be it humanitarian help and support for development. With a theology of resilience, we will be able to confront the trends and powers that hamper our constructive engagement with the greatest challenges of our time. We will be able to confront polarization. We will be able to resist populism. We will be able to counteract protectionism. We will be able to fight against post-truth. And we will be able to overcome patriarchy.

#### A SPIRITUALITY OF COEXISTENCE

With a spirituality of coexistence, we will be able to revisit some of the borders that are harmful to our working and living together as one human family. We will be able to foster more adequate views of nature and will listen to the groaning and longing of creation for the revealing of the children of God (Romans 8: 19–23). And this will put us in a more effective position to address climate change in a holistic way. With a theology of coexistence, we will be more eager to hear the stories of those who are suffering and will be suffering from the degradation of their environments and livelihoods. We will be better at listening to the voices of Indigenous peoples. We will care for the fourfold web of relationality, knowledgeably and wisely.

#### A SPIRITUALITY OF HOPE

With a spirituality of hope, finally, there is reason to expect change. Underlying all those major questions of our time, for believers and nonbelievers alike, is the pressing question: "What may we really hope for?"

Clearly, people of faith have a special vocation to respond in honest, empathetic and intelligible ways, as 1 Peter admonishes us: “Always be ready to make your defense to anyone who demands from you an accounting for the hope that is in you; yet do it with gentleness and reverence” (1 Pet 3:15f).

Hope is different from optimism. Optimism builds on that which is already known. It gains its authority by extrapolating from trends that already exist. Optimism operates exclusively with the category of *futurum*. Hope does more than that. It includes the perspective of *adventus*, watching out for promises. It transcends the purely rational, without being irrational. One might say that hope brings *ratio* and *intellectus* together in a way that renders an existential surplus. It is such a surplus we need in the process of looking for and finding a humanistic home in the digital age.

A credible and theologically sound hope has at least three components, namely anger, humility, and courage. Hope needs to be able to harbor frustration and anger about all that is not right, all that in the end is an attack on the fourfold web of relationality. It also needs a sense of humility—so that we can understand our place and role as created co-creators and co-creatures. This understanding is a presupposition for good action. Hope also needs courage to stand up and work for change where it is needed. In the majority of situations, we are left with the option to choose the path of courage.

## NOTES

1. According to Caroline Berg, Chair of the Board of Axel Johnson AB.
2. <https://venturebeat.com/2020/09/02/the-social-dilemma-how-digital-platforms-pose-an-existential-threat-to-society/>
3. Han (2019, 28, 39).
4. Han (2019, 29).
5. Han (2019, 30).
6. Han (2019, 41–57).
7. Carr (2010, 5).
8. From the Netflix documentary “The Social Dilemma.” See even her 2019 book: *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (Zuboff 2019).
9. <https://www.apa.org/pubs/journals/releases/abn-abn0000410.pdf> or <https://time.com/5550803/depression-suicide-rates-youth/>
10. “A Growing Number of American Teenagers Particularly Girls are Facing Depression.” <https://www.pewresearch.org/fact-tank/2019/07/12/>
11. See this article from Australian newspaper, *The Age*, reflecting on the documentary “The Social Dilemma.” <https://www.theage.com.au/national/victoria/it-makes-you-want-to-throw-your-phone-in-the-bin-the-film-turning-teens-off-social-media-20200926-p55zhi.html>
12. <https://www.moralmachine.net/>
13. <https://ec.europa.eu/digital-single-market/en/news/ethics-guidelines-trustworthy-ai>
14. Steven Crofts “10 Commandments of Artificial Intelligence” are quoted in this article dated February 28, 2018. <https://www.christiantoday.com/article/bishop-issues-10-commandments-of-artificial-intelligence/126588.htm>

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