

Olga Zlatkin-Troitschanskaia
Gabriel Wittum · Andreas Dengel
Editors

Positive Learning in the Age of Information

A Blessing or a Curse?

 Springer VS

Editors

Olga Zlatkin-Troitschanskaia
Mainz, Germany

Andreas Dengel
Kaiserslautern, Germany

Gabriel Wittum
Frankfurt am Main, Germany

ISBN 978-3-658-19566-3 ISBN 978-3-658-19567-0 (eBook)
<https://doi.org/10.1007/978-3-658-19567-0>

Library of Congress Control Number: 2017963358

Springer VS

© Springer Fachmedien Wiesbaden GmbH 2018

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Printed on acid-free paper

This Springer VS imprint is published by Springer Nature

The registered company is Springer Fachmedien Wiesbaden GmbH

The registered company address is: Abraham-Lincoln-Str. 46, 65189 Wiesbaden, Germany

Higher Education: A Platonic Ideal¹

Howard Gardner

Abstract

What form should a non vocational, liberal arts education take in the 21st century? Three facets stand out. Curriculum should foreground those ways of thinking that young adults are capable of: philosophical and semiotic reflection, interdisciplinary connecting, synthesizing and systemic thinking. Character should help to form the kinds of professional workers and citizens which are needed at the local as well as the global level. Context should model and epitomize the kinds of institutions that are worthy of admiration and encourage students to seek and to foster such contexts for the rest of their lives and for posterity. The key components of such an education should be valorized around the world, even as, consistent with the goals of the PLATO Project, it should be perennially adapted to changing conditions. While it is especially appropriate for young adults, it can and should be pursued across the life span.

¹ Acknowledgment: I am grateful to Ann Blair, Susan Engel, Wendy Fischman, Jin Li, John Rosenberg, Kathryn Webber, and Ellen Winner for their careful reading of earlier drafts of this essay. I also want to thank the generous funders of the project on "Liberal Arts and Sciences in the 21st Century"—this essay draws heavily on the work that they have supported.

Keywords

Liberal Arts; Curriculum; Institutions; Character; Ethics; Professions; Synthesis; Citizen; Adolescence; Philosophy; Semiotics; Interdisciplinarity.

1 Introduction

As one scans the globe, or even makes comparisons within the United States or Western Europe, the differences across institutions of higher education loom vast. Many are professionally oriented or, at the least, pre-professional; some value a curriculum of choice, others a structured program in the liberal arts and sciences, or deep immersion in a particular subject matter; some emphasize teaching, while others are focused on research and the training of future researchers. These institutions also cater to many different kinds of students, ranging from those whose families are wealthy and highly educated to those who are the first in their families to matriculate beyond secondary school. Ages of the students may vary considerably; and many pay little or no tuition and live at home, while others confront huge fees and may accrue sizeable debt – a debt that may limit their life choices after graduation.

While acknowledging these sizeable and sometimes consequential differences, in this essay I deliberately put them aside. I contemplate the kind of higher education that I would like *all* young people—or at least the vast majority of youth—to have, indeed, to participate in actively. In a few fortunate cases, the students in question will already have achieved such an education by the latter years of adolescence—probably because of the high quality of their primary and secondary educations, possibly because they grew up in a remarkable household or exerted herculean efforts on their own behalf. In many cases, the students may not receive such an education in their late teens or early 20s—but particularly in this era where lifelong learning is increasingly valorized, they should eventually experience it; and both the students themselves and the communities in which they live will be likely beneficiaries.

My focus on late adolescence and early adulthood is deliberate. Adolescents and young adults—roughly 16-25 years of age—are capable of cognitive feats that are beyond the ken of most younger children. At this stage of life, young people are most open to cognitive broadening, least likely to be burdened by other commitments (full time work, taking care of their own household, starting a family).

The education that I describe in these pages is both timeless and timely. Timeless in the sense that it goes back to Socrates, Plato and the period of the Greek

city states—and may well have had antecedents or parallels in other traditions with which I have less familiarity (cf. Jaeger 1945). Timely in the sense that it seeks to address the challenges and opportunities of today and, if my intuitions are credible, of tomorrow as well.

Consistent with the organizing principles of the PLATO Project (cf. Zlatkin-Troitschanskaia et al. 2017), I discuss in turn three issues: *Curriculum* (or course of study); *Character* (the kinds of human beings that we hope to nurture); and *Context* (the educational environments conducive to these curricular and character goals).

2 Three facets of teaching and learning in higher education

2.1 Curriculum

Broadly speaking, school curricula in our time should achieve two fundamental goals: inculcate students in the major ways of knowing that scholars have developed over the past centuries so that the students themselves can employ them and perhaps extend them; and give students the skills to communicate effectively—in writing, in speaking and conversing, in person and online. More specifically, these curricula should introduce mathematical, scientific, humanistic, and artistic ways of thinking and knowing (Gardner 1999). As they are introduced to these ways of thinking, students should learn about the methods that are used by the respective disciplines; which findings (or truths) have been widely accepted and why; which issues are in sharp dispute and likely to remain so; and how one can progress toward consensus, where that seems imminent or possible.

My assumption is that much of this introductory work can be done in primary and secondary education. Obviously, if it has not taken place or has been poorly modelled and/or insufficiently supported, these omissions become additional challenges for formal higher education or for self-education over the course of life.

Accordingly, higher education should introduce students to three broad forms of knowledge with which they are less likely to have familiarity and less able to employ readily:

1. *Philosophical thinking*

At least since the time of Socrates and Plato, human beings have pondered the deepest and most significant issues of human existence: who we are as human be-

ings, what does it mean to lead a virtuous life; what is truth and how do we establish it; why do we have society (and societies) and how should they be ordered, led, regulated, maintained or changed? Implicitly, we encounter such questions much earlier in life—for example, through stories, works of art, revealing or problematic personal experiences—ranging from residing or travelling in different societies to experiencing the death of loved ones. But most young people do not follow up on these questions in a systematic way; they are unaware of the centuries-long conversation within and across societies on these and other enigmas; they do not explore the links between questions that they themselves are pondering (e.g., Who am I? What is love?), and the many powerful ways in which these questions have been and continue to be pondered by wise women and men.

As one example, consider issues of personal identity—what does it mean to be a person, who am I, why am I the way I am, do others have distinct identities, how do they resemble or differ from my own and how could I tell? Virtually every conscious human being reflects on these issues in one way or another—from the time that we recognize ourselves in a mirror to the time when we contemplate the loss of a loved one or our own death. But our ability to reflect intelligently and broadly on these questions is enormously enhanced if we learn about how thoughtful members of our species have conceived of existence, identity, the self, will, and self-consciousness; how these issues are approached in art and humanistic scholarship, on the one hand, and in studies of other organisms, other entities (like robots), and our own developing brains and minds. As a result of this immersion, we can think more deeply about these issues and communicate our thoughts more effectively to others.

2. Semiotics or modes of symbolization

Like ‘philosophy’, the polysyllabic word ‘semiotics’ may be off-putting; but the ideas of semiotics are exciting, and many young people resonate to them (Eco 1986; Goodman 1968; Langer 1942). All of us recognize that we communicate with oral and written language; but we also communicate, knowingly or unknowingly, by means of many other symbol systems—digital, mathematical, computer programs, facial and bodily expressions, works of art, signaling codes, even deliberate omissions and hesitations etc. Each symbol system turns out to be more suitable for addressing certain questions and communicating certain messages than for addressing or communicating others. Each of these semiotic forms works more effectively in certain media—print, film, photography, computer code, hypermedia, two dimension depiction, sculpture, architecture, musical performance—than in others. Coming to understand the means of communication available to us and

to others, how they work, what their strengths and limitations are, which sensory systems they engage, which ones we favor and why, turns out to be interesting, enabling, enlarging.

We can carry out semiotic analyses on any kind of message, ranging from our thoughts about our personal identity to our convictions and uncertainties about global warming to our evaluation of the ideas in this essay. As an example familiar to almost everyone, consider what happens when one spends some time in a culture—or even a household—that is quite different from the ones with which we are already familiar. We need to be able to represent this experience to ourselves and, not infrequently, to others—nowadays, most persons would take photographs and post them, though I myself prefer to muse and write (and occasionally dream) about them. The choice of medium is just the beginning: Does one craft a factually objective account in language; compose a story or a poem; make drawings, caricatures, designs, sculptures; devise a website; or choose some other medium of communication? As a parallel exercise, does one look at how others have represented such experiences for themselves and for others—in semiotic terms, which symbol systems do they employ; how and why do they employ them; and with what effect?

3. Synthesizing knowledge

Even those individuals who have mastered specific subjects or disciplines have little experience in combining knowledge, insights, quandaries from these sources of knowledge in ways that are illuminating, or that point up unsuspected problems or unanticipated possibilities and insights. After all, unless you understand a particular way of thinking, or a particular concept, reasonably well, you will not have the requisite distance to judge how it fits, or fails to fit, into ways of thinking or concepts that have arisen in another discipline (or for that matter, in a radically different symbol system). And you may also have difficulty initiating the kind of higher order ‘systemic’ thinking that allows one to compare one system—whether it be Marxist vs capitalist vs anarchistic views of society; or genetic vs epigenetic vs cultural explanations of behavior—with one another.

Nobel Prize physicist Murray Gell-Mann once remarked that, in our time, the most important mind is the synthesizing mind (Gardner 2005). All of us are now deluged with copious information and misinformation, much of it undigested, much of it difficult to understand, let alone evaluate. No longer can a person simply study one area of knowledge without being exposed to others; the boundaries between areas of knowledge and expertise are increasingly porous. To be sure, various programs and ‘apps’ may help the individual sift, sort, and synthesize the information that may arise in specific disciplines and be expressed in specific

symbol systems—to nudge us toward Positive Learning. But in the end, each of us needs syntheses, interdisciplinary amalgams that fulfil our own needs, our own curiosity, our own rigid as well as flexible views of the world. Similarly, we need bridges between those disciplines about which we are knowledgeable, and those on the border of—or well beyond—our own expertise. While there are formal courses in philosophy and semiotics, the field of personal or computational synthesis is still young. In my own case, I've learned from studying the works of great synthesizers, like biologist Jared Diamond (1999) and geologist Stephen Jay Gould (2002), and by soliciting feedback on my own more modest attempts.

2.2 Character

In most societies, over the centuries, education has had two primary goals: to introduce the major forms of literacy (the traditional 'three R's,) and to nurture individuals of admirable character. When schools were religious in origin and Scripture effectively constituted the curricula, the precepts and desiderata of the religion-in-question determined the character; when schools became public or national rather than dedicatedly religious, the form of character-to-be-achieved was that of a good citizen. And indeed, in many societies today, the national curriculum has embodied within it—implicitly if not explicitly—the traits and traces of patriotism most admired in the ambient society.

Still, at a time when competition among nations is fierce, and national tests focus on disciplines (and particularly performance on tests of Science, Technology, Engineering, and Mathematics (STEM) knowledge), the classical goal of the formation of good character often recedes in importance. Sometimes, there is a focus on what we may term 'performance character'—what it takes to get ahead personally. This focus ignores those traits that are important if we are to serve others than ourselves (Weissbourd and Gardner 2017). And all too often, the formation of character is ignored altogether. This is unfortunate, to say the least. The result is not the absence of character, but rather the encouragement, by default, of less attractive features of character, ranging from selfishness to arrogance to bullying.

On my analysis, growing out of decades of study of good work and good citizenship, it is helpful to distinguish two developmentally arrayed forms of character (Gardner 2010; Gardner 2011; Gardner et al. 2001).

The first is the development of *neighborly morality*. Here I refer to the traits, behaviors, and dispositions that we are expected to develop and exhibit with reference to the people with whom we grow up and regularly interact—family, friends, classmates. Its tenets are familiar to everyone and for the most part uncontroversial.

sial: the Golden Rule (do unto others ...) and the Ten Commandments (honor thy parents—and thy God—and refrain from lying, swearing, stealing, killing, and committing adultery). One hopes that as part of growing up in society, one not only knows these tenets but endeavors to follow them; if not, then higher education has a lot of remediation to accomplish.

Much less appreciated, but of great importance in any complex society, are the *ethics of roles* (cf. Weber 1958). In invoking the term 'roles', I refer to the behaviors, attitudes, and expectations that we associate with certain positions (technically, certain statuses) within that complex society. Associated with most roles in such a society is the acknowledgement that difficult issues will arise; by definition, these will not have clear and simple solutions: to resolve these dilemmas, one needs to draw on past knowledge and models, consult regularly with knowledgeable peers, reflect intensively and extensively, make the best decision that time permits; and then, recognizing that one will not always be successful, reflect on what went wrong and how one might do better next time.

In contemporary society, the ethics of roles is constantly tested in two realms: the work of the professional, and the work of the citizen.

For the professional—be one a teacher, lawyer, nurse, or engineer—vexed questions arise almost daily. Whom should one serve? In what way? What to do when there are conflicting demands on one's time, or when one's expertise pulls in different directions? How to balance personal needs and pressures with the code, the ethos, of the profession and of the professional? How to make amends when one has fallen short of the ideals and values of the professions? What are the consequences when one consistently violates precepts of the code? And what happens when long-established norms and practices are no longer viable—as happens all too frequently in a digital age (cf. Susskind and Susskind 2016)?

For the citizen a raft of analogous dilemmas arise. How does one inform oneself with respect to issues of the day? How does one know whom or what to trust and what to ignore? Should one personally run for office or join a governing body? And if not, in what other ways can one contribute to the welfare of the communities in which one lives? How should one vote—especially when there is tension between one's personal wellbeing and the needs and demands of the broader community? And beyond casting a ballot, are there other viable ways to practice good citizenship (petitioning, attending meetings, participating on websites or social media concerned with civic issues)?

I do not wish to suggest that there exists consensus on good work and good citizenship across or even within societies. (Indeed, the concept of 'the good' raises both philosophical and semiotic issues). But I feel confident in asserting that it is best to put forth one's own position publicly; to listen carefully and discuss openly

areas of disagreement; to attempt to reach consensus or at least 'agree to disagree'; and to remain open to eventual 'meeting of the minds'.

As is the case with the curriculum that I've outlined, it's important to keep in mind which issues of character can and should be addressed in the first years of schooling—and that is where 'neighborly morality' should be at a premium. In primary and middle grades, kindness toward others and awareness of their needs and desires are key. As one goes to secondary school and to higher education, these facets of neighborly morality should certainly be continued and, indeed, reinforced—and in the best of circumstances, they have been solidified and internalized. But in addition, the educational system needs to prepare young people for the important roles of worker and citizen—because, rest assured, one cannot count on other societal institutions to take on such formidable educational challenges.

Even for young adults who have had a fine education and are primed to master the curricula that I have described and to construct the character that is desirable, the challenges for our time are formidable. Three, even four years may not suffice. But here is where our third factor—the context—can be of signal help.

2.3 Context

The institutions in which higher education takes place have the potential to aid, or to hinder, attainment of the curricular and character goals that I have outlined. Whether they live up to their positive potential—constituting a healthy learning environment—may well determine whether these curricular and characterological desiderata are achieved, or are even broached.

Here I am reminded of a well-known discussion in Gilbert Ryle's philosophical treatise *The Concept of Mind* (1949). In explicating the nature of certain complex concepts, Ryle discourages us from trying to locate them in a particular time or place—he terms this 'the fallacy of misplaced concreteness'. As a convenient and apt example, he chooses "The University". Ryle points out that the university does not exist specifically in the buildings or the textbooks, or even the particular subject areas and persons. Rather it is an omnibus concept—one that allows us to continue our conversations about an institution distributed in time and place, even though we may lack a common concrete instantiation. Indeed, 'university' is the kind of concept that young persons may have difficulties in thinking about, because, as primarily concrete thinkers, they are particularly susceptible to the aforementioned fallacy.

But whatever the college or university is, or is not, we may think of it as a set of experiences with certain rough temporal and spatial characteristics. How those

experiences play out— particularly at times of crisis or opportunity—constitute powerful learning experiences and especially so when the education is residential and takes place over several years.

An example from my own university: In 2012, a significant proportion of students taking a course at Harvard College cheated. (By a curious coincidence, the course was Government 1310—“Introduction to Congress”). A scandal ensued and many students were punished. Monitoring the behavior of senior administrators, I was distraught that initially they said so little publicly about the incident—its possible causes, consequences, and implications for future policy. Eventually leaders did take appropriate actions—but at the time I commented that ‘the silence at the top’ constituted the loudest message of all. In the absence of any explanation or comments from designated leaders, students as well as outside observers were left with a raft of questions: What happened? Why did it happen? Could it have been prevented? What processes were used to adjudicate the cases of accused students and with what effect? What did the events reveal about the College? What change in messages and policy might ensue? And how could one determine whether such changes were effective? Indeed, what does ‘effective’ mean in such cases? Different attitudes, enhanced understandings, or simply different actions?

The cheating example is just one of the numerous troubling incidents that occur regularly in colleges and universities. Some occur at quite specific times and places: a sexual assault; a fraternity party that results in damage to persons or property; the hiring or firing of a controversial professor; dispute about whether to invite a controversial speaker; and, nowadays, leaks of inappropriate or controversial messages sent through social media. Others are policy issues that are less time-bound but equally serious: On what bases are faculty and senior administrators hired and promoted? Which subjects and topics should be valorized or avoided? Should certain groups (athletes, legacies) get favorable admission or on-campus treatment? And, a question dating back to the time of Wilhelm von Humboldt—Who is responsible for the articulation, monitoring, and adjustment of overall goals—designated leaders, faculty, students, or the demands and priorities of the wider society?

Students will spend an enormous amount of time at the college or university—a time of life when they are highly impressionable and as free from obligations as they will ever be. Drawing on a large scale research project in American colleges and universities in which I am involved, I can conceptualize two very different kinds of institutional contexts:

On campus A there is a clear sense of mission, developed and fine-tuned over a considerable period of time. This mission is well known. Students are informed about it before they matriculate; reminded of it when they come to campus; and observe older students, faculty, and administrators refer to the mission and embody it

in their own actions and interactions. Indeed, the full range of staff know and seek to realize the mission; and when alumni return to the campus, they are eager for signs that the mission endures, and they become concerned if the mission seems to have been forgotten, or has become attenuated, or suddenly or subtly changed. Most important, those members of the community who fail to honor the mission are informed that they are undermining its effective operation. If they don't mend their ways, they are to be severed from the community; and there is consensus that the right decision has been made in the longer term interests of the institution and its mission.

On campus B, there is also a stated mission and on paper it sounds good. But the mission is seldom mentioned on tours of the campus; it's not an important part of student experience on the initial days and weeks on campus; and indeed, many members of the community do not remember, or even know, the stated mission. An anthropologist ignorant of the mission would infer the school has *no* dedicated educational mission. Instead, such a mythical observer would conclude that what is valued on the campus are big time athletics, weekend binge drinking, and lavish expenditure on buildings and galas. Special privileges are afforded to successful athletes, while students with large bank accounts exhibit their wealth ostentatiously. When alumni return to the school, they seek to recreate the athletic victories, the parties, and the drinking of their earlier times.

In publications that evaluate institutions of higher education, the two schools may get similar ratings—because the ratings may be based on the selectivity of admission or on reports of student satisfaction or on increase in endowment, but no observer would confuse Campus A with Campus B.

Obviously, these two portraits are exaggerations. Social scientists would call them 'ideal types'—the rest of us might call them 'caricatures.' Campus A may become unduly smug; Campus B may seek to invigorate its stated mission. But anyone knowledgeable about the educational scene in the United States at this time would recognize the difference; and I suspect there would be high agreement on which campuses (far fewer) are closer to prototype A and which are closer to prototype B.

At issue here are the contexts of institutions (Hecló 2011). These contexts take decades to build and achieve so that they actually constitute the DNA of the time-and-at-the-place. Alas, the caliber of the institutions can more readily be undermined—one or more ill equipped leaders, crises or scandals not anticipated and not dealt with adequately, can bring about a quick and possibly long-lasting decline or even demise.

Contexts are powerful—be they primary school classrooms, college or universities, religious institutions, or residential neighborhoods. I would submit, that at

least in the United States and possible elsewhere, the contexts of institutions of higher education exert powerful, long-term and possibly lifelong effects on the minds and mores of students who matriculate there for several years.

With reference to our themes, educational contexts are powerful and perhaps even determinant of curricula and character. Whether or not the institution (in its mission) pays lip service to the liberal arts, the importance of Socratic discussion or Platonic dialogues, the development of critical and creative thinking, students will notice whether their classes, their clubs, their professors, and others on the campus, are actually and regularly posing big questions, reflecting thoughtfully on possible answers, and sharing the wisdom of the past and its applicability—as well as its possible irrelevance—to contemporary and future concerns. By the same token, students will notice how individuals *ordinarily* treat one another in class, hallways, dining halls, in strolls across campus, at cultural and athletic events; and they will notice equally what gets said and done—and what does NOT get said and what does NOT get done—when something extraordinary happens (as it surely will!) and what consequences ensue in successive days, months, years.

To underscore: Both neighborly morality and the ethics of roles are at stake. Context counts a lot; it can even be determinant!

3 Conclusion

In this essay I've covered a lot of territory. I have allotted considerable space to my own views and, it should be conceded, my own prejudices. I could offer rationales and rationalizations for this decision; but suffice it to say that it is sometimes important to step back, to survey a broad horizon, and to try to make sense of it as best one can—secure in the knowledge that one cannot have it all right and that others will step in and edit or erase as merited (cf. Rosenberg 2017).

This essay is also a response to a specific context: the launching of the ambitious PLATO Project (cf. Zlatkin-Troitschanskaia et al. 2017). This timely and worthwhile endeavor seeks to lay out, in more specific terms, the higher education that is needed and wanted in our time and how that might be achieved. In my remarks, I have sought to be Platonic in two senses: going back to the roots of education as we know it in the West (Jaeger 1945) and in the sense of an ideal (Platonic) form. Without presuming to appropriate the language of the PLATO Project, I have sought to describe one instance of Positive Learning: curriculum that includes three higher forms of thought (philosophical, semiotic, interdisciplinary); character that begins in early life with neighborly morality and then adds a focus on the ethics of civic and professional roles; and the institutional context that

is most likely to yield learning which we can valorize and cherish. Both the selection of foci, and my particular ‘take’ can be debated, and I welcome such debate.

Without doubt, the picture I’ve sketched is quite American—indeed, representative of that slice of the United States that still values a broad education in the liberal arts, and that recognizes that morality and ethics cannot be assumed, they must be nurtured. Clearly, a fuller picture would need to include systems of higher education that are more focused on particular professions and occupations, that are nationally funded, and that honor international standards, such as the Bologna protocol. Yet, I would regret if readers from other cultural backgrounds were to dismiss as parochial the portrait that I have fashioned here. While the specifics doubtless matter, the broad points about curriculum, character, and context should have global relevance and significance.

But to evoke the terms ‘global’ or ‘universal’ reminds us that we live in a rapidly changing and largely unpredictable world (Goldstein 2015; Harari 2017). Architects of the PLATO Project are well aware of this, and so they are appropriately cognizant of developments in brain sciences (and other scientific and humanistic disciplines) as well as breakthrough in technologies, software, hardware, new platforms, new media. It will take individuals far more knowledgeable, far wiser than I am, to judge which aspects of my prescription are timeless and which are, perhaps hopelessly, time-bound—and hence subject to the disruptive forces of our era, ranging from the proliferation of digital and social media to the resurgence of nationalism and xenophobia and propaganda, now lexicalized as ‘alternative reality’. Yet, should the time come when much (or even all) of humanity is replaced, by neuro-electric transmission, genetic manipulation, computer programs that are smarter than we are and robots that are more agile than we ever can be, there still remains the haunting question—for what end? And it is to that question that my words have been directed.

Bibliography

- Diamond, J. (1999). *Guns, germs, and steel*. New York, NY: Norton.
- Eco, U. (1986). *Semiotics and the philosophy of language*. Bloomington: Indiana University Press.
- Gardner, H. (1999). *The disciplined mind*. New York, NY: Penguin Books.
- Gardner, H. (2005). *Five minds for the future*. Boston, MA: Harvard Business School Press.
- Gardner, H. (Ed.) (2010). *Good Work: Theory and practice*. http://thegoodproject.org/pdf/GoodWork-Theory_and_Practice-with_covers.pdf. Accessed: 12 August 2017.
- Gardner, H. (2011). *Truth beauty and goodness reframed*. New York, NY: Basic Books.

- Gardner, H. (2012, September 23). *Reinventing ethics*. New York Times. <https://opinionator.blogs.nytimes.com/2012/09/23/reinventing-ethics/>. Accessed: 12 August 2017.
- Gardner, H., Csikszentmihalyi, M., & Damon, W. (2001). *Good work: When excellence and ethics meet*. New York, NY: Basic Books.
- Gardner, H., & Shulman, L. (Eds.) (2005). On professions and professionals. *Daedalus*, 134(3).
- Goldstein, R. (2015). *Plato in the googleplex: Why philosophy won't go away*. New York, NY: Vintage.
- Goodman, N. (1968). *Languages of art*. Indianapolis, IN: Bobbs-Merrill.
- Gould, S. J. (2002). *The structure of evolutionary theory*. Cambridge, MA: Harvard University Press.
- Harari, Y. (2017). *Homo deus*. New York, NY: HarperCollins.
- Heclo, H. (2011). *On thinking institutionally*. New York, NY: Oxford University Press.
- Jaeger, W. (1945). *Paideia: The ideals of Greek Culture*. Oxford, England: Oxford University Press.
- Langer, S. (1942). *Philosophy in a new key*. Cambridge, MA: Harvard University Press.
- Rosenberg, J. (2017). An educated core: Rethinking what liberal-arts undergraduates ought to learn, and how. *Harvard Magazine*, July-August, 2017, 47–55.
- Ryle, G. (1949; reprinted 2002). *The concept of mind*. Chicago, IL: University of Chicago Press.
- Susskind, R., & Susskind, D. (2016). *The future of the professions*. Oxford, England: Oxford University Press.
- Weber, M. (1958). *From Max Weber: Essays in sociology*. In H. Gerth and C. W. Mills (Eds.). New York, NY: Oxford University Press.
- Weissbourd, R., & Gardner, H. (2017). Beyond performance character: From 'me' to 'we'. (Unpublished manuscript).
- Zlatkin-Troitschanskaia et al. (2017). *Positive Learning in the Age of Information*. Draft Proposal Cluster of Excellence. Johannes Gutenberg University Mainz (Unpublished Manuscript).

