## **Free-Progress-Education**

A futuristic vision of self-directed, project-oriented, direct-democratic, and non-hierarchical, learning communities from primary education to academic research

Marco Masi Ph.D.\*

#### Copyright © 2019 by Marco Masi

All pictures, graphs and images are taken from the online free-use Wikimedia Commons repository, if not otherwise specified.

#### All rights reserved

ISBN: 978-3948295004

This text of this book, or parts thereof, may not be reproduced in any form or by any means, electronic or mechanical, including photocopying, recording or any information storage and retrieval system now known or to be invented, without written permission from the Author. For information about permission to reproduce selections from this book, contact e-mail: marco.masi@gmail.com

## **Table of Contents**

Introduction to the ideal of a Free-Progress-Education5
Rethinking education as a precondition for the progress of mankind
Motivation for the ideal of a Free-Progress-Education
A personal preamble
My learning path from elementary school to post-doc research
My experience as a school teacher
The problem with modern education
The spell of utilitarianism in the industrial era and the decline of science 36
The death of creativity in an era of big science
The pedagogical 'black hole' of high schools
Past and present attempts to reform education
Homeschooling and unschooling
The democratic schools education paradigm
Rediscovering the true spirit of education
Humanizing education80
Integral education85
Acknowledging the soul factor
Towards liberation from ordinary education
What a Free-Progress-School & University might look like101
The pedagogical foundations for a Free-Progress-School and University
The structural foundations for a Free-Progress-School and University 108
The didactical foundations for a Free-Progress-School and University 114
The administrative foundations for a Free-Progress-School and University

Possible research areas of a Free-Progress-University	128
The social and infrastructural foundations for a Free-Progress-Learn self-developing Campus	
What the daily life in a Free-Progress-School & University might look	
The vision of a University of Human Unity	140
The short- and long-term aims	144
Conclusion	146
Endnote	151
Acknowledgements	151
Bibliography	152
*About the author	159

### Introduction to the ideal of a Free-Progress-Education

# Rethinking education as a precondition for the progress of mankind

The survival of a humanity which is not willing to change is far from guaranteed. In a globalized and interconnected world, we won't be allowed to continue with the same mindset, habits, institutions and policies that we have maintained for the last couple of centuries. Economic or social reforms will not be enough. Sophisticated scientific-technological machinery such as artificial intelligence (AI) or humans on Mars won't save us, either. The ever-increasing complexity of our social, economic and material infrastructures will become out of control despite – and, eventually, because of – an equally increasingly complex rationalized and digitalized organization. Humanity must choose: Go beyond and accept not merely a superficial external change, but also a mental, psychological and spiritual transmutation, or become part of an enslaving machine which sooner rather than later will lead to a catastrophic relapse, if not to self-annihilating scenarios.

These challenges range from a global financial system that is rapidly collapsing under its own weight to an ecosystem that might be destroyed by a mindless species which is trampling everything it finds in its path, from terrorism, to national or ethnic conflicts that are spreading throughout the world, to the more subtle but no less insidious problems of the psychological dimension that are plaguing the human race.

If humanity will not become a more peaceful species, weapons of mass destruction might wipe it out or send it back to the stone ages. Peace treaties, new political world orders or high-ranking presidential summits might temporarily postpone conflicts but cannot, in the long run, avoid war and potential self-destructive behaviors. Science and technology will play a decisive role in converting environmentally destructive production means and polluting energy sources into clean and sustainable economic infrastructures. However, it is an illusion to believe this alone will be enough. If the next couple of generations do not develop a renewed inner contact and love for Nature as part of their own being and spiritual essence, all the sciences, green policies and economies or international climate summits may result in the helpless inability to avoid disastrous climate change and a lethal global poisoning of earth, water and air.

The same applies to supposedly new forms and conceptions of economic orders. The right-wing ideal of a (more or less capitalist) self-regulatory competition-based economy, which supposedly distributes wealth according to meritocratic principles, as well as the left-wing ideal of finding socio-political machinery able to redistribute wealth according to principles of equality, have always led, at best, to only very partial successes. An economic barbarism of commercial exploitation in an overpopulated world remains an ever-present reality and the divide between rich and poor has only grown and seems unstoppable.

To resolve these global issues, new thinking and feeling are necessary. Skills like creativity, imagination, genius, originality, inspiration and contemplation, as well as a completely new vision of the future and how we are supposed to get there, are urgently needed. However, our present institutional educational and academic system systematically sets aside these skills or even represses them.

Humankind must change its mind and soul from the inside-out by stopping to look for a miraculous technocratic formula which believes an outer perfection could lead to its harmony and happiness. This change won't be possible if the coming generations are educated by the same principles, mindset and institutional order which frame the present educational system and which, in turn, frame their minds. One of the necessary actions to save human civilization is to embrace the key function of education. If we do not soon allow for new forms of education which contemplate the individual human being in its spiritual dimension and which do not focus solely on the intellectual development of the child and teenager, then (regardless of how rationally, scientifically and technologically well-educated they might therefore become), humankind will continue to remain cognitively utterly unable to avoid preventable catastrophic setbacks due to war, environmental collapse and economic or psychological meltdowns.

The recent worldwide "School Strike for Climate" movement (also known as "Fridays for Future") in which school students decided to not attend classes and instead to take part in demonstrations which demand action to prevent further global warming and climate change, is quite a symptomatic event. Young people (more or less unconsciously) regard school as a place that no longer prepares them for the future and the real world in which they will soon live. Despite its not being explicitly rationalized and verbalized, it is clear that they feel their education is not appropriate for dealing with the pressing issues our modern society must urgently deal with.

In this context, education is central because if the chains which actually are enslaving it won't be cut, all the other existential issues that humanity must urgently and sustainably govern will find, in the best-case scenario, only very superficial and temporary solutions, or will result in selfdestruction the Without in worst case. a completely education paradigm, the global problems we are facing can't be settled. A new educational paradigm allowing new generations to become more flexible in their thinking and actions is a precondition of the resolution of global threats. If the Gordian knot of education doesn't undergo a deep and systemic structural change which eliminates imposed curricula, grades and preordered learning paths onto all, without opening itself to the curiosity and inner potential of the child and the individual genius which hides in every one of us, humanity might still reach high material and technological achievements, but will finally become, itself, a machine – a 'borg-society' which ultimately will end like the dinosaurs.

The good news, however, is that if we embrace such change, we, as a species, will not only allow ourselves to survive but will be able to go much further than what our wildest imagination can think of. It is not about fixing and oiling the same machine, and not even about inventing a new one, but about laying the foundations for a new luminous and harmonious future on Earth which can manifest itself if our inner and spiritual powers can finally be unleashed.

#### Motivation for the ideal of a Free-Progress-Education

"You cannot teach a man anything, you can only help him find it within himself." Galileo Galilei (1564–1642)

Galileo had this insight about four centuries ago. Our schools and universities are, however, still modelled on an obsolete framework of values, a framework that had as its sole purpose the creation of an obedient and malleable citizenry fitted for commercial productivity and military efficiency. While we have seen, in our own times, dictatorships fall and new freedoms blossom, and, thanks to the Internet, increasingly liberated individual self-expression, schools and higher education still remain governed by an unchanged authoritarian mindset that considers the creative potential of the individual at best a secondary aspect, and in most cases fears it as a threat. Learning continues to be mainly based on a dry, mechanical process that ignores the creative and spiritual dimensions of the human being.

In my personal experience as schoolteacher and tutor for first-year college students, I could observe how deep the lack of critical thinking is in too many young students, and how an entire generation has lost their creative potential. Most young people today are 'learning consumers', not thinking creators or producers. Many got a degree with the best grades, and yet have lost almost all their ability to think out of the box. They accept blindly the mainstream theories, or repeat blindly that of the so called 'free thinking' 'independent' media of the opposite side, wait for orders from the top, and are only able to solve problems (sometimes quite efficiently, indeed), but don't feel any desire to ask questions. Several act like obedient and subservient soldiers who feel gratified at how quick and efficient they are in executing the given tasks. But they no longer have visions or any mental ability to look beyond their narrow borders towards new horizons.

Many are proud to be part of some prestigious university or to be employed in a powerful corporation, but have lost their soul and a healthy, sceptical attitude towards the system they have willingly agreed to be slaves of. But I'm not blaming them. In the prison camps for children, called 'schools', most youngsters are subjected against their will, by the system they were born into, to a subtle but permanent and incessant social conditioning that forces them to kill their own creative self-development, self-expression, and potential for creative self-organization. In order to survive, these children have to conform to that system by sacrificing their ability to think critically and to be creative, to such a degree that they are no longer aware of this loss. If asked what they really want, even at an advanced age, the typical answer is 'I don't know'. We are looking at an entire generation of young people 'zombified' by a programme that repressed since childhood any self-unfoldment, a generation that, if allowed to become suddenly free, would stand there with a big question mark over it, and falling either in total passivity without knowing what to do, or into lawless chaos.

And yet, I know that the contrary is true also. The new generations, and even more the coming ones, are different than those only twenty or thirty years ago. The new children will increasingly refuse to participate in a standardized activity which supposedly fits for all. More and more teen agers are questioning the system their parents accepted almost without criticism. Fewer and fewer youngsters will follow blindly the educational path the state or some private school system has planned for them already before their birth. Many children will live much more inwards and may manifest their dissatisfaction not in words but eventually through illnesses, mental pathologies, rebellion, truancy, etc. The future of humanity won't be characterized so much by new super technologies, as by the rise of a

### A personal preamble

#### My learning path from elementary school to post-doc research

As a personal preamble, I might point out that my interest in the subject of education originated in my quite disappointing experiences while an undergraduate, graduate, and Ph.D. student at universities, where no place was left for a free intellectual development, and no freedom to discover and explore, and where no joy of self-learning was allowed. And it is perhaps because of my innate thirst for freedom and independence since childhood that I can't remember to have had a much better feeling at school either. Therefore, even if you might not relate it to your youth which was (hopefully) conditioned by more encouraging educational experiences, and even at the cost of appearing the 'weepy guy' who seems continuously to feel sorry for himself, let me present a brief summary of my personal experiences from childhood to adulthood.

They began in the first years of elementary school, shortly after kindergarten. I was fascinated with birds. I can't explain why, but I felt passionately that I should know all there was to know about them—their names, their species, and their lives. When I asked my teachers if I could carry out research on birds and read up on them, I was told that sure I could, but I would have to wait a couple of years still, while learning to read! 'How can you learn something about birds if you can't even read?', was the answer. Sure, that sounds extremely rational, doesn't it? But apart from the fact that I never learned anything about birds, neither the couple of years after, nor during all the time at school, it became very clear that it was only an excuse, more precisely a lie, told to a child in order to control his innate curiosity and bring him back to obedience. Why not have learning to read by letting a child study ornithology? Would that really be an impossible solution? Bureaucratically speaking, it was indeed: the system did not allow for separate paths, everyone had to learn from the same books and in the same way. That is why I had to learn, like everyone else, from extremely boring grammar books with ridiculous dialogues like "Hello. my name is Udo. I am Ina, what is your name? What time is it? Dora drives a car. Peter asks Dora...", and dozens of similar idiotic phrases, which had to be written down and repeated parrot fashion by children who, perhaps, could instead have learned all that much better and faster if their inner desire to know much more fascinating things about the

institutional demands and rules. Having experienced this state of affairs, I learnt at first hand, and with absolute clarity, just how decadent conventional education had become. Out of this experience grew a desire, a dream, to initiate something that would lead to giving the young generations the opportunities they still don't have. That became a persistent and enduring thought, and led me to reflect on new forms of education, learning, and free inner growth.

### My experience as a school teacher

During my Ph.D. course, and especially during the few years working as a postdoc, I had to assist or teach university students. I then found myself on the other side of the lecture hall, and could see things from another perspective. Most of the students were quite skilled and smart minds, and yet I was appalled to see how ill equipped they were in developing a topic and conducting research on their own without someone telling them explicitly what to do, how to do it, and when to do it. This lack of passion, self-initiative, and desire to know more than what the official academic path proposes and implants in their minds, was quite revealing of how deep-seated the problem is. That problem may be traced back to the first years in ordinary schools, and eventually even to the kindergarten years. That is why I did not mind returning to the good old school system, where I worked as a teacher in a high school.

Therefore, the reason I decided to teach in a school was certainly not because of a propensity towards the ordinary school system. Even though I wanted to become a good teacher and convey as best as I could my knowledge and experience to young people, the real reason I embarked on this 'undercover mission' is summarized in the good old saying that "to beat your enemy, you must know your enemy". And this not by reading books or developing an external theoretical understanding of how a system works but by working in it, experiencing and living it from the inside with all its plethora of problems, difficulties and challenges. Otherwise that would amount to what almost all professional academic pedagogues do: they lecture on how schools should work and on how children should learn but they have themselves never set a foot in a classroom as teachers.

I enrolled as a math and physics teacher in a Bavarian Waldorf school in Germany. A school inspired by the teachings of Rudolf Steiner, an Austrian philosopher, esotericist and educator, who in 1919 initiated a private school system that is quite common nowadays in Germany. Waldorf schools are very successful not only in Germany but have expanded, especially in the last decades, throughout the world. Since it is a

### The problem with modern education

# The spell of utilitarianism in the industrial era and the decline of science

A reflection on my life, which I have described, right from my school years to my recent experience as a high-school teacher, prompted me to give thought to the root causes of the malaise that afflicts modern education. Why is it that not all of the innumerable reforms and changes and revisions have brought so little real or significant improvement in the centuries-old education system of ours? In the best of cases, they have barely scratched the surface of the system's problems. Even those who hold conservative views on the subject have been expressing their dissatisfaction with the present state of affairs, and are now voicing a demand for fundamental revisions in the structure of the educational system.

There are several different possible approaches to analyse the deep reasons that lie behind the crisis of present-day education. One is to analyse first the historical development of education science.

The first schools and structured university-like educational systems appeared as early as the 6th century AD under the aegis of the Latin Church in monastic schools in which monks and nuns taught classes. The first learning environment awarding degrees, and autonomous from religious authority, was the University of Bologna in 1088, a law school. However, the impulse to build these institutions didn't come from purely practical considerations, but resulted also from the renewed interest in philosophy and natural philosophy gained from the rediscovery of the ancient Greek texts. Besides arithmetic and geometry, law and medicine, academic fields that were not really the most practical and financially profitable academic topics, such as metaphysics, music, and astronomy, can be considered the oldest subjects of study that humanity pursued. The rediscovery of the ancient Greek works, in particular those of Aristotle, ignited an intellectual effort that was directed primarily towards an understanding of the natural world and its processes, a spirit of inquiry that had no necessity for direct or immediate practical applications. And, interestingly enough, most medieval universities were based on a free student-controlled organization.

This changed only later, about five centuries after the first Bologna university, with the emergence of the nation-state, which brought education

the computer software company. What did huge and rich industries like HP or IBM, or prestigious academic institutions like UC Berkeley or Harvard miss or lack in order to achieve what a few young men did?

### The death of creativity in an era of big science

The lack of creativity is not only inherent in a standard industrial approach but reflects itself also in larger research projects. It impacts modern schools and academia in their way of thinking, conceiving, and doing science. Its organizational conception has become commonplace in the large laboratories, those forming part of the worldwide big science initiatives. Big science is one of the most prominent and visible symbols of our age, and has been criticized for several reasons. However, the connection between the dark side of huge scientific projects and that of modern education is rarely highlighted.

The first big science project dates back to the times of WWII, and was the famous Manhattan Project. As is well known, this was a US-led research project, with some participation of other nations like the UK and Canada, that aimed at the construction of the first atom bomb, which was used later on Hiroshima and Nagasaki. Was it a success? In a certain sense it was, since it obtained the desired result and put an end to WWII. But it may not be a coincidence that one of the first big science projects came from the military, just the kind of environment which places at the centre the protection of the collective, against the interests and development of the individual. Anyway, the Manhattan Project came into existence in an atmosphere of war, fear, and distrust, leading to a huge loss of lives making it clear what a horror the nuclear holocaust could be. Nobody today takes this as an example to justify funds for projects.

Shortly after the Manhattan Project, the international community launched a large-scale research study aimed at obtaining a controlled nuclear-fusion reactor (the type of nuclear energy that makes stars burn) that was supposed to save us from future energy crises. But after more than half a century it remains unclear if it is possible even in principle to build one (nobody knows how to build the chamber that must efficiently contain the hot plasma without a risk of meltdown).

In the 1960s we had the Apollo Project, and about 10 years later astronauts were sent to the moon. But today, almost half a century later, everyone realizes that it was only about the cold war and politics, certainly not about science and the wellbeing of humanity as a whole. And, frankly, where is the 'giant leap for mankind'?

development of the genius. It should have been clear since the beginning that it couldn't deliver the promises it made. It is time to rethink all that from the ground up.

#### The pedagogical 'black hole' of high schools

In this historical, social, and economic context of industrialization, those who have suffered the most in terms of intellectual growth and renewal are high schools and universities. The attention devoted to the pedagogical aspects of higher education and that devoted to primary education are orders of magnitudes apart. There is a hiatus, a 'black hole' that divides the two worlds in pedagogical science. It is particularly in the domain of secondary school and college levels upwards that we urgently need new methodological approaches to studying and learning.

The roots of this cultural crisis, stemming from a centuries-long stagnation, can be found in the psychological mechanism that dominates our daily life, apart from the historical development of education, industry, economy, and science. One of these is what I would call the 'learning-slave effect'. There are slaves who know that they are slaves, but there are also slaves who don't really realize that they are slaves. We live in a cultural context that has convinced and manipulated us to such a degree that the system we live in must be considered the best one possible. Especially when it comes to higher education, where we must learn professional skills and absorb huge amounts of data and stuff, we tend to convince ourselves that there could be no better way to achieve some skills and objectives than to adhere to and accept the present paradigm, as if it were given by a supernatural law. A frequent statement coming from young students annoyed by their school system is that their anguish is a 'necessary evil', an 'unavoidable suffering', as if it were imposed not by a human made organization, but by a law of nature, a mathematical necessity of life that can't be changed, not even in principle.

In fact, conventional schools, especially high schools, are the only institutionalized forms of submission which are still accepted without any critical thinking, even in the most democratic countries. Young students are rarely allowed to learn what really interests them, but must usually learn a lot of stuff that nobody knows what it is really useful for. With strictly defined curricula, they are told what to learn, how to learn it, and in what time frame they have to learn. Not much room is left for the realization of one's own ideas and interests through a self-chosen path of study. But lots of uninteresting useless mind stuff has to be absorbed according to a 'sponge principle'. All is pushed forward by external

press and the cheap availability of books, not to mention the advent of digital media which made access almost free for all, this method of transmitting knowledge has become completely anachronistic. And yet, this tradition has been passed on to modernity, without substantial change or adaptation. After over six centuries, we are still 'lecturing'!

This example of humanity's stubborn and extreme resistance to change may also have something to do with the fact that, while the abovementioned approaches contain a substance of truth, they might still miss something fundamental.

There have been improvements in education, of course, but only at the margins, and not in its fundamental nature where the paradigm still hasn't changed. The feeling persists that we are still scraping the surface, and haven't found the essence, the unifying principle.

### Homeschooling and unschooling

Homeschooling, also known as 'home education', is that kind of education in which parents opt to educate their school-aged children at home rather than at a public or private school. Parents themselves take over the education of their children as teachers and tutors. Contrary to common belief, this is a form of education practice of which was and remains allowed in most Western countries. There are notable exceptions, however, like Germany or Sweden, where it is illegal. In some other countries, it is only a small peripheral phenomenon, but is nevertheless firmly anchored in their respective Constitutions, like in Italy. Homeschooling has a fairly widespread acceptance in the U.S., Canada, and the U.K.

Homeschooling is nothing new. In fact, it is the oldest form of child education, first practised by noble and rich families, who enlisted professional teachers for the private education of their children. Only privileged classes could afford this, while most of the middle and lower classes had to continue to subsist in ignorance and poverty. This was one of the reasons State-funded schools came into being. Their large-scale introduction in the 19th century in most of Europe opened up the system to all the strata of society. In this sense, compulsory school attendance played an invaluable role in uplifting the literacy of the masses which became the primary driving factor for a worldwide industrial and commercial growth. Homeschooling never quite died out, but became at that point an educational practice that only wealthy families maintained, and it survived also among those who preferred to educate their children according to religious precepts. For this reason, it was and still is connected until today

and a real research environment where experienced instructors can help along a learning path. Unschooling can be a point of departure, not that of arrival. It still lacks of some fundamental ingredients which are typical of a living learning community which wants to prepare itself for the highest achievable professional skills. While for some, homeschooling and unschooling in their present format might be sufficient, sooner or later others will feel the necessity to organize a free, self-determining and open learning community which conceives of infrastructures and an organization which will retain some aspects of a conventional school and is capable of preparing them for high-level college and university educational skills. Or to put it in other words: don't us let throw the baby out with the bathwater!

Most unschoolers object that, if one desires to acquire a higher degree of education, eventually with a certificate, anyone is free to do so by attending the present structures, that is the high schools and college. But this forces one again to be pressed into the very same learning environment which a free-progress learner is supposed to avoid. In some countries, folk high schools exist which prepare adults to attain academic degrees. But these are usually very limited and are just courses which prepare people as 'external students' to an examination of a school or academia. Not much more. These learning environments have no marks of FPE like the one we would like to propose here.

### The democratic schools education paradigm

Perhaps the most interesting and relevant case, which might prove to be an inspiration potentially leading to a future FPE community for higher education might be the so-called democratic schools. Their origin can be found in the Summerhill school. In 1921, A. S. Neill, a Scottish educator, founded the Summerhill School, in Leiston, England. It was the first of the pioneering projects of a model that would later be followed worldwide, a model which envisages schools as a self-governing community and a place where children are free to choose their activities. Neill was light years ahead of his times, and his school concept remained an isolated example for about half a century.

Later, a similar concept was initiated in the 1960s by Daniel Greenberg with the 'Sudbury Valley Schools'. (89) These models provide a school environment where no one is forced to learn, and there are no grades, tests, or classes: children play and learn altogether without being organized in age groups. Democratic-school education is based on ideals in which democracy is both a goal and a method of instruction, and fosters self-determination as well as the values of justice, respect, and trust. In these

### Rediscovering the true spirit of education

"The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn."

Alvin Toffler

### **Humanizing education**

Once it is established that the current paradigm of pedagogical and didactical learning, working, and research is outdated, and no longer serves the needs of a modern society, the question would be: what should the alternative paradigm look like? There are two facets, two approaches in dealing with learning, research, and the advancement of culture generally. The first approach is to insist on the idea that we need even more skilled leaders, fundraisers, and managers who are able to direct large research programmes and groups of teachers, professors, and scientists. This envisages a huge, well-organized managerial system that pressures people to produce results quickly and in conformity with preset specifications. This paradigm does not envision pursuit of knowledge for its own sake. The second possibility, in contrast, might be a somewhat less ordered, nonlinear, and unpredictable process, which, however, should rediscover the ancient human impetus to understand nature, the drive to free, independent and creative thinking, the spirit of the natural philosopher who pursues the freedom to develop his/her own research programme, the inspired musicians or contemplative artists, and which liberates everyone's intellectual independence and potential independently of its possible applications. The social, cultural, and economic future of humanity will depend on the choice we make today.

True, in this market-driven world of ours, the latter alternative may sound too romantic. But didn't modern society bet too much on the former? After all, where did the great minds that transformed the world materially come from? From schools and universities where they learned only the real-world practice preparing them for their future jobs, or from institutions that also foster theoretical approaches of pure thought, like philosophy and humanistic practices like music and the arts? How could it be that a genius like the German writer, poet, and scientist Johann Wolfgang von Goethe never went to school at all? Or, just to mention another interesting homeschooling case, the father of André-Marie Ampère kept his son far from formal schooling, allowing him to educate himself

#### Acknowledging the soul factor

With this integral and integrative approach it is no longer difficult to recognize how even more important than contributing to financial security, education is expected to bring to the individual a means to achieve a degree of self-perfection, through a progression of consciousness. This can only happen if we discard our long-held and widely-accepted academic attitudes in favour of a new understanding of the human being. Instead of brilliant students, we must look for the living souls that feel the 'fire of progress'. Under the free-progress system, people align with themselves, students learn to align with their 'inner guidance system', and progress is guided by an inner inspiration, and is not subject to habits, conventions, or preconceived pedagogical ideas or theories.

There is now an increasing awareness that most of our top-down educational systems do not foster creativity and freedom, and, in fact, genius and the intuitive thinker. An acknowledgement, which however, as we have seen, isn't new. Many are realizing the misalignment between the ideals we have about liberating a new spirit and the everyday reality in primary and secondary schools. But, to the best of the author's knowledge, there are at present only sporadic attempts to look for concrete ways for this misalignment to be repaired. A bottom-up approach for a fully-fledged professional higher education is also overdue. Once we have acknowledged the lack of freedom for creativity in schools and colleges, what should the next practical step be?

Of course, we hear about reforms, need for change and new laws, and appeal to those in charge and responsible for educating new generations to change their mind, and take action. But so far not much has changed in these respects. Why? Sure, shifts take time to take effect. This shift is still in progress and yet not complete. But the number of people who woke up and realized the limits and intrinsic failure of the actual system has grown enormously in the last years. And yet the very same people working, teaching, and conducting research in these institutions seem unable to change anything. If they are part of the same academic system, why do they not make a difference? There must be something missing.

The point is that any attempt to reform education, without a profound understanding of human nature and the uniqueness of the individual in his/her multi-dimensional spiritual aspects, will never be able to go far enough, and will always contain the seed of an unconscious mechanical reformulation of the past. For example, intuitions or revelations are considered interesting side effects at best, but the higher states of consciousness of the seer or intuitive genius are not deemed worthy to be

#### Towards liberation from ordinary education

Learning is a process of individual development and as such should become a basis for the free individual unfoldment and personal development as it is prescribed by one's inner potential. It is time to look further afield for an independent place where this type of free-progress approach in education can emerge and can serve a new kind of society. Not so much because there aren't people capable of giving effect to a free-progress approach in the present ordinary conventional schools and academia, but because the present educational system is intrinsically designed to refute this alternative since it is based on a machinery that appoints to the top of the hierarchy just those who are alien to this educational conception.

We would expect an institution to be guided by the best minds, for instance the best-performing students. But who are actually meant to be the 'best', especially in present schools and universities? All too frequently they are not those who have shown skills of creativity, originality, or intuition. They turn out, on the contrary, to be just those who managed to be best in adapting themselves to the preordered classical intellectual or political system, and those who were more successful than others in adjusting their character to a tradition-bound institution, and perform its assigned tasks faithfully. These individuals are rewarded for their loyalty, and will be those who climb up the ladder of the hierarchical structure. And from there they won't be able to do anything else than perpetuate the same system in its disguised appearances and different masks. It is inherent in their education and character, they can't do otherwise. If you are a sheep, you will always behave like a sheep, and once you will become the head of the flock, you will again maintain a system for sheep. Expecting a reform from inside of this environment is vain, it can't emerge, or if it does, it will take centuries. The economic and personal interests which stand in the way are much too powerful, the fear of change and innovation too strong, and a blind pragmatic conception of education itself much too deeply engraved in the mind of those who would have the power and the authority to make the needed changes happen. Why should someone call for a change or even elimination of something that promoted him to a dominant position? The pressure of a potential judgement from the system and the institutional environment (parents, colleagues, other institutions, politics, eventually even the media, etc.) is so strong that even the most powerful dean rarely dares to step outside the given conventional schemes. And to expect something from politics is even more unrealistic. Politicians are the guardians of the past, their job is to conserve and maintain what is.

# What a Free-Progress-School & University might look like

"We are going to have to find ways of organizing ourselves cooperatively, sanely, scientifically, harmonically, and in regenerative spontaneity with the rest of humanity around the earth .... We are not going to be able to operate our spaceship earth successfully nor for much longer unless we see it as a whole spaceship and our fate as common. It has to be everybody or nobody." - R.

Buckminster Fuller (94)

The question at this point is: what can be done now as a first step towards this vision? After my disappointing personal experiences in several study and working environments, a vision came into being: something which conceives of a learning centre not only for primary and secondary education but also at higher education levels, and which gives people the possibility to express themselves, practise self-learning, and grow by means of an intellectual and intuitive learning process that the standard educational paradigm does not consider, and even openly discourages. A place where students can freely navigate their path to knowledge, and study what their inner being suggests in complete autonomy, not what the faculty imposes. A place where all can pursue their own research lines, and even exercise intuitive approaches that are strictly forbidden in today's institutions.

What follows is only a raw draft, a sketch I tried to lay down for a new educational paradigm. Time will certainly show its drawbacks, and the paradigm may have to undergo change by trial and error as circumstances demand, since there is no real example which is at present in existence and could be taken as a reference. But what is clear is that one of the mistakes committed in the past, for example by the Waldorf pedagogical approach, was to set some principles once and for all, and treat them as eternal truths. These models were indeed new and revolutionary at their times. But an attitude that does not allow for a further evolutionary development, and especially for criticism of the original ideas of their founders, makes them outdated doctrines that no longer fit the needs of modern times. Therefore, while I believe the time has come to set new principles and new organizational, pedagogical, and didactical structures, it is of paramount importance to consider these only as provisional. Everything written in this document must be taken as only a temporary understanding and ideal, which must be continuously subjected to critical assessment and a dynamic change. I would not be surprised to discover that when I reread this document in the future, I will probably even disagree with myself in regard to several aspects. The ideals and principles of an FPE must be regularly revised, changed, and adapted to the present situations. They must be in a continuous transformation at any moment, like a flexible and living organism, and be able to remould themselves like the phoenix of legend. Principles, rules, laws, constitutions, or any written document that regulates the life and work in a free progress system, must always lend themselves to re-examination and revision at regular intervals. This proviso is vital so that what is now considered a new and revolutionary ideal may not return to being an old, encrusted paradigm, resistant to change.

# The pedagogical foundations for a Free-Progress-School and University

Having said that, however, we must begin from where we are and what we have. Some ideas, concepts of organizations, principles, and structural outlines must be set down in black and white. The time has come for us to take the risk of change, without fear of the future, to expose what is no longer tolerable, to detach ourselves from the present system and yoke of power, and to criticize and complain, and, at the same time, to propose realistic and practical alternative ways to proceed. While outlining the structural and administrative foundations of an FPH and FPU, we have to keep in mind some core ideas which may serve as indicators for the new pedagogy. A free-progress environment is not a lawless freedom, chaos, or just a place where we may do whatever we want without regard for others' rights. Quite the contrary, there might be even more rules and even forms of reprimand. But the rules imposed must have a twofold complementary function: guarantee not only the collective quality of the school or university, but also the individual freedom of expression as long as it does not hurt others.

Let us begin with the traditional idea of the teacher or professor. It is that of an authority that has competence in a specific subject, and whose main responsibility is to transfer this knowledge from his/her own brain into other brains (with more or less authoritarian methods and threatening means like exams and grades). In the new educational paradigm the student alone is responsible for his/her self-education. The choice of the subject to study and of the learning methods are completely left to the student. What has to be learned must be determined from a desire to learn, a curiosity to know, from an inner authority. There is no longer someone who 'teaches',

The time factor is of central value here. Great discoveries have sometime been made quickly, paradoxically just because the discoverer was not under time pressure. Our brain sometimes needs incubation times to find the right answer. It does not work as in textbook problem solving. It works according to a path and pace where, sometimes also long times of incubation, evolution, and maturation, apparently without tangible outer results, are needed, and that must be allowed before, sometimes suddenly, it reaches the heights of a new and original idea.

Summing up, what follows is a list of proposed actions to be taken for FPE in comparison with the ordinary education paradigm.

Ordinary education	Free-Progress-Education
Top-down teaching: the teacher/professor tells class what should be learned. Motivation is fostered, if at all, by extrinsic means. The student receives teaching.	Bottom-up learning: the learning mentor helps the student to discover what his/her inner being wants to learn. Intrinsic motivation has precedence over the extrinsic one. The student practises self-directed-teaching methods.
The choice and quality of the content to be taught has paramount importance.	The quality of the learning mentor is much more important.
The aim is to become fit in being competitive in the modern world and in the choice of a career.	The aim is to discover what your purpose in this life is, give it a meaning, the means to pursue it, through a 'learning to learn' process. Cooperation is favoured over competition.
Children are distributed in grades and classrooms according to an age-wise grouped scheme.	All pupils and students play and learn together without distinction of age. There are study rooms but no system of age-wise structured classrooms.
The school sets fixed learning schedules.	Allow for incubation times. Everyone has his own time of growth!

Analytic-rational exercise.	Contemplative approach.
Learn by imitating what has been done. The institution sets the goal.	Learn by doing what your inner call suggests. The student selects the goal.
Everything is focused on acquiring knowledge aiming at production.	Focus on understanding and doing following your own call. It is not so much about knowledge but competences.
Works on the weaknesses. A lot of emphasis is set on acquiring so called 'basic concepts'.	Works on the strengths. Who decides what is 'basic'? There is something in us that knows much better than anyone else what basic knowledge is good for us.
Fostering skills, speed, and efficiency in reproducing specific tasks.	Fostering interest, curiosity, talent, and inclinations.

# The structural foundations for a Free-Progress-School and University

In the following pages we would like to name those aspects that should be abolished entirely from the modern educational machinery and what instead could be alternatively introduced.

First of all, the elimination of exams from a new school, college and university educational system is of paramount importance. Exams have always been a means of submission, fear, and even political power, inside a command and control system, not a tool which fosters real learning. Real learning is not made of a repetition of concepts regurgitated in an academic course. Real learning can only happen in a self-directed and self-controlled system, through self-acquirement of notions, the deeper understanding through direct experience, the unfoldment of the spirit in learning, instead of the repression of creativity by reiterating a litany to an instructor who looks at the student from above, and menaces retaliation with a bad grade. The compulsion with grading has its roots in the obsession for an enumerative knowledge where everything must be standardized and

possible during the selection process (for example, by asking for only CVs without photographs and personal data of the candidate). Research proposals should be as blind as possible with the evaluating committee having no information on the applicant's background or publishing record.

All this can be summarized with the following set of proposals which elucidate what new forms of teaching and learning could be introduced in a free-progress educational institution.

Abolition of	Proposal
Exams	Effectuation of a system that fosters/guides free knowledge and self-directed learning. Free choice of performance in front of the community.
Grades	Non-quantitative judgement but qualitative advice by learning mentors and students on how to proceed.
Degrees	Development portfolio: certification of attendance and productivity, only with qualitative, non-quantitative assessment, if necessary
Admission requirements	Everyone is allowed to participate.
Huge tuition fees for being allowed to submit oneself to a 'via crucis' with the prospect of a degree	No fees or admission costs, or as low as possible. The FPS, FPH or FPU student does not pay for a degree but, if at all, for a chance of self-development.
References	An advisor who needs second-

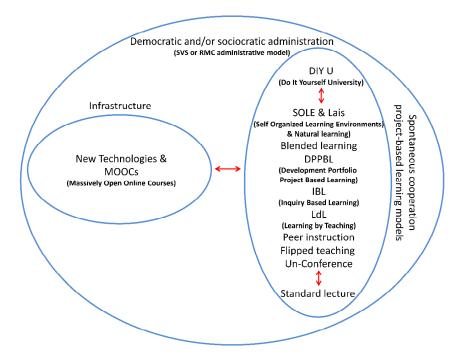
	hand judgement and isn't able to recognize the skills of a student should quit the job.
Traditional student-teacher- professor pyramidal hierarchies	No hierarchies of 'teachers' or 'professors' exist. Only learning mentors and students that eventually even exchange their roles by exchanging knowledge.
Curriculum and syllabus	Learning mentors' freedom to structure any kind of syllabus they desire. Student's freedom to refuse it and re-structure it accordingly to his/her own skills.
Race, gender, age, or physical criteria	If selection rules must be applied, then, as far as possible, without age, gender, personal data, or handicap disclosure. In case of research proposal, without publishing and career records.

# The didactical foundations for a Free-Progress-School and University

As to the learning methods, a variety of different approaches have emerged in the last years which suggest new ways of learning and they could perhaps become the backbone of a new FPS, FPH and FPU.

The material concept should provide state-of-the-art educational technology forming a networked community, based on an open-source ideal, and with free access to MOOCs which will enable students to learn also from professors and courses at any outside university in the world.

MOOCs are a relatively recent development in distance education, and their effectiveness remains to be seen. But it is hard to believe that new technologies might not, in one way or another, play a role and become a In fact, the drawback I see in these methods is that, more or less explicitly, each learning method claims itself separately to be the best for every child or youngster or adult. What they lack is the possibility to choose. For instance, the SOLE and the Lais methods focus excessively on group work and leave aside those who eventually want to learn alone a very specific subject that nobody else is interested in. The LdL might be fine for those who are more extrovert and who like talking in front of an audience but penalizes others who are less skilled in attracting the audience attention and might be nevertheless great learners and be active in some other form. The DPPBL approach is great for those who envisage themselves working onto projects or in research labs, but why not take a good old traditional teacher-centred class?



All these approaches still inherit an unconscious compulsory attitude which reverberates the following: "Now we all must learn together according to this new revolutionary education paradigm and you must align yourself to it". Alternatives are again discouraged or banned entirely. One might also a desire to practise for some time one technique and switch later on to another. For example, a student might begin with an auto-didactical approach by reading books or using MOOCs, then participate to

a flipped classroom and only later finally set into practice the acquired knowledge and skills by initiating a DPPL. There are infinite possible variations, overlaps and interactions among these different educational pathways. To my likeminded Lais advocates I use to say that real natural learning can not go without self-determined learning. So, choosing the one or the other learning method separately, even if in line with one's own inclinations and preferences, is still not the ideal setup. An element of self-determination is still lacking.

Therefore, to ensure a learning environment based on a passion-driven learning framework, all of these aspects and properties should not taken separately from each other. FPE works as an integrated, interdependent system, a living and learning organism where each one is not only allowed to choose the learning method but has also the freedom to change it with time passing by and according to one's own personal growth. Providing a rich pioneering environment for multiple models of education we could have true freedom to walk out of the system.

The previous diagram tries to summarize some of the aforementioned.

# The administrative foundations for a Free-Progress-School and University

The administrative and organizational structure of an FPE setting represents a huge challenge in its direct practical execution. Regulatory norms, codes of behaviour, conflict resolution, and problem-solving approaches must be considered. To the best of the author's knowledge, only some attempts have been made, but so far no existing institution can be said to have the creative self-organizational representative and transparent structure we are trying to outline here. Inevitably, what follows can only be an outline, and must be considered a temporary sketch of ideas. Only actual experience in the real world will show how and where it may have to be amended from time to time.

However, if we were to look for a model that could be considered the nearest in its ideals and aims to those of an FPE, we may find one in Summerhill School or the Sudbury Valley Schools, which already have several years of experience in applying the principles of freedom closely connected to rules of responsibility. It is therefore interesting to see if and how far the daily life of a student, and the internal administration of a new school and university, might be inspired by that model.

First of all, it should be said that there are no hierarchical figures, there are no 'directors', 'presidents', or higher ranking personalities with more

administrative powers. There could be single figures which have some special task or responsibility, but everyone is subject to the rule of laws enacted by the General Assembly.

General Assembly: The General Assembly (GA) is the committee which takes decisions relevant to the administration and life of the FPS. FPH or FPU, making them, through a process of direct democracy, selfadministered institutions. Each institution is represented by all the enrolled students and learning mentors. All have the right of one vote. Participation is open to all members, but is not compulsory. The GA handles all the issues of the school or university and their internal life, i.e. it deals with ideas, plans, applications, problems, rules, financial issues, household, and develops common solutions, and decides what learning mentors are allowed to be hired or not, who is allowed to take part in the community, and who must go. It is in this context that the students must comply with its rules and directives. In the case of serious breaches of rules by students, or anyone else, the offenders could be dismissed by the GA. In fact, the GA decides on the hiring and dismissal of the staff, the financial issues like the renewal of the buildings, their maintenance, and the financing of projects, lectures or other activities related to the life of the institution. The GA discusses, votes on, and ratifies the internal regulations, as well as their modification. In case of conflicts or breaches of the rules, it can set up a legal committee which discusses the cases in order to find compromises and resolve conflicts. It can, if other options did not produce results, impose sanctions and penalties. The GA is the administrative heart of the school or university.

Communication Committee: It manages all the contacts and the communication policies with the outside world. The communication committee is subject to the GA. Its task is that of organizing PR, marketing and fund-raising campaigns. It builds up the presence of the FPE entreprise on the Internet (i.e. through websites, Facebook, blogs, Twitter, etc.). During the initial phase, a pre-marketing action is probably necessary, with seminars, conferences, and information evenings, and recourse to the Internet, in order to convey to the public the benefits of the free-progress concept and its methods.

**Students**: Anyone can enrol in an FPS, FPH or FPU. As already stated, age, sex, and disability should not be criteria for acceptance, and the 'first come, first served' rule should apply. It should be made perfectly clear to all concerned that responsibility comes with freedom. Every student and,

collective future. It is about a 'circle' process: sociocracy distinguishes between a 'general circle' and the 'top circle', each with different figures in charge and eventually structured hierarchically (but not necessarily so), with each level linked by having representatives of the lower level to the upper level, and with veto power. It is a form of equalitarian cooperation on a team based decision making by consent towards a common goal. As an example of the effectiveness of sociocracy the case of Gerard Endenburg's electrical engineering company is cited frequently. Due to a deep financial crisis in the 1970's, he was almost forced to close or lay off sixty workers. However, through a system regulated by a dynamic governance of consent, the creative process led to the idea that the sixty workers could be quickly trained for another job, i.e. marketing, which led to the growth of several departments and the solution of all the problems in three months. Endenburg's company became the world's first sociocratic self-owned organization, abolishing thereby the owner-employee relationship. And, by the way, to connect to the above mentioned Kodak's bankruptcy case, one might wonder if the company's trajectory would have been different if its corporate structure had been sociocratic instead of a top-down hierarchy? Sociocracy is still in its infancy, but so far it has been implemented successfully in several business enterprises, organizations, and also some schools, like for instance the Rainbow Mountain Childerns School (RMCS). (99)

### Possible research areas of a Free-Progress-University

In principle, if we really wished to be consistent with the ideals of an FPU, the question of what kind of research areas should be pursued in a free-progress university should not even arise: a free-progress academy must develop spontaneously, without there being already in advance established departments and intellectual lines of inquiry. Areas of research are identified by the learning community, i.e. the students and the learning mentors. However, it might be interesting, at least at a speculative level, to try to put forward some suggestions which might serve to encourage and stimulate newcomers to pursue some study in one or the other subject. Because, there are several lines of research, topics and interests that are usually not allowed inside the current academic paths, since they are too far away from the mainstream thinking or the accepted conventional ideas.

New education research, in the form of new pedagogical and didactical concepts, tools, and practices, might well become one of the

central studies of an FPU. Of course, pedagogical studies are not new as such, as school teachers (who must take exams and practical tests before being allowed to teach) know very well. But the science of education explored in a completely different setting such as an FPU would acquire a wholly new dimension and meaning. The research on new didactical and pedagogical approaches inside a really free university will give us completely new insights. An FPU will become a test bed in practice of many educational theories which were previously impossible to verify in an authoritarian learning system.

Peace, conflict resolution, and self-determination studies could also find in an FPU an ideal place to flourish. It is hard to understand why, in a world plagued by wars and civil unrests, these lines of research are still so scarce in academia. It is incredible that, while the world is filled with weapons of mass destruction, where military spending is seen to be rising, terrorism and ethnic tensions are constantly increasing in a globalized world, peace studies and conflict resolution topics in the academic world remain much too limited. They do not exist in most universities, and where they do, they occupy a tiny niche in research. This is probably due to the fact that these are still relatively new lines of inquiry, and as in the case of everything that is new, they are treated with scepticism and doubt. In a hierarchal system, students are not allowed to propose new themes, and all themes must be approved by professors who may already have chosen another direction, and have something else in mind, it will take years, if not generations, to slip through new research directions in line with the times. In an FPU, this problem does not arise. It is inherently encoded in its essence that students themselves propose new lines of research without needing approval by anyone, and it even encourages them to do so.

New world economy, ecology, sustainability, and fair trade are becoming increasingly urgent topics. However, in most institutions, these are still learned and taught with a basically conventional capitalistic mindset that puts at centre stage the GNP, mere liquidity indicators, and the exploitation of human and natural resources. Still too scarce are efforts in designing new principles which rely on genuine progress, the common well-being, or respect for the preservation of natural resources. Is it just a vain chimera, a too idealistic wishful thinking to conceive of a just economy and trade? Could there be other leading principles than egoism, competitiveness, and material appropriation without ethics that can guide world economy?

New foundations of physics research could be another possible line of inquiry. Applied physics experienced a tremendous development when several new discoveries from the micro- to macro-cosmos were made. But while the theory of relativity, quantum physics, and the standard model (SM) of particle physics that emerged from it revolutionized our worldview of the physical world, the past half-century has not seen much progress in the conceptual foundations of theoretical physics. Relativity and quantum mechanics are both correct theories, and yet they seem conceptually incompatible. Relativity describes well the force of gravity, but seems to have nothing to do with electromagnetic and nuclear forces. Ouantum mechanics describes well the latter forces, and even unifies them. but refuses to encompass gravity. It is known that, even though it is an extraordinarily successful and tested theory, the SM can't be the whole story, because it contains several free and yet fine-tuned arbitrary parameters, apparently just by an extraordinary coincidence. But any attempt to go beyond these theories has so far failed. Generations of physicists worldwide have tried to conceive of a new 'quantum gravity theory', but such attempts have only led to an even deeper crisis, since most of these theories turned out to be either wrong or far beyond any possibility to be experimentally tested in the foreseeable future. Slowly but steadily, it is becoming clear that the problem might not be only of a technical nature, but perhaps has its roots in an encrusted way of conceiving the material world. New ideas, insights, and original, groundbreaking intuitions are necessary to get out of the impasse. What is missing in our present social and academic structures are the 'seers' who, like Copernicus, Galileo, Newton, or Einstein, understand the fallacies of the conventional paradigm, and are able to look further. Only then will we probably be able to go beyond the present crisis of theoretical physics. But, as we have seen in the previous sections, these are precisely the kind of personalities that the present colleges and universities refuse to admit. An FPU instead would be an ideal place where they could express themselves.

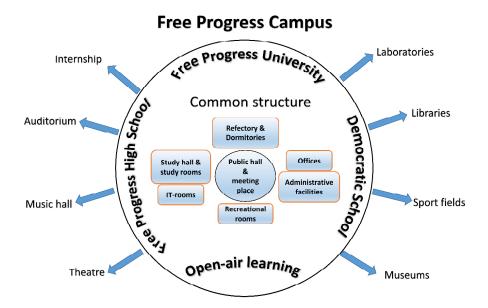
These were only some examples of possible lines of research in an FPU. It is quite possible that completely new lines will turn up. These examples were only meant to highlight how several research areas may find a much vaster and more fertile ground in an FPU mileau than in conventional universities.

# The social and infrastructural foundations for a Free-Progress-Learning self-developing Campus

The architectonic disposition of modern colleges speaks volumes about the lack of an interdisciplinary mindset. Every department has its building. The architectonic compartmentalization is a reflection of the cultural compartmentalization. This division may have practical advantages, but there is an unnoticed drawback. Philosophers of science rarely share their time with scientists outside seminars for the simple reason that they are physically separated. The same can be said of physicians and biologists, or artists and scientists, and so on. But a real living and culturally dynamic environment should not have these artificial segmentations. We should recall how the great philosophers and natural scientists of ancient Greece considered it a perfectly natural fact that artists, philosophers, scientists, and others could talk, interact, and exchange their knowledge and experience with one another. Interaction between people of very different backgrounds can ignite a diversity of ideas and new forms of collaboration that would not be possible if they were housed in widely separate structures.

Whereas the way we interpret the department compartmentalization in a conventional academic setting should be submitted to a critical assessment. System theory, the study of how complex systems work, can help us understand what is problematic in the fragmentation of a university system into separate and distinct departments and sub-departments. A university, college or school structure, with all its social activities, should be considered a complex system of human interactions. According to system theory, a healthy and functioning complex system is always a whole of interrelated and interdependent parts which cannot be divided into independent parts. Considering these parts as independent units in isolation from the others cannot explain the properties of this very same whole. This is because each of its parts determines and affects the properties and behavior of the whole, which arise due to its mutual interactions. For example, a human being cannot be considered merely a combination of independent organs. The properties and the behavior of a complex system like a living organism are the result of the interdependent interactions of each of its organs. Furthermore, the quality and improvement of each part does not necessarily improve the whole; eventually, it may worsen its efficiency and eventually kill it. This can be exemplified by the example of how a car works. Assembling the best automotive parts from different cars and different automobile companies won't result in the creation of the best car. This is because the parts simply don't fit, as they are made for very no reason to erect conceptual and physical walls between so-called primary- and 'higher education'. This doesn't mean that this distinction no longer exists, but that it is perfectly possible to conceive of an environment that allows them to co-exist without separations. What speaks against a free-progress-campus where a 65-year-old FPU professor shares his/her daily professional life and wisdom in the same learning infrastructure of a 16-year-old student of a FPH or a 6-year-old child of a democratic school? That would not be limiting, but potentially even be very enriching for all.

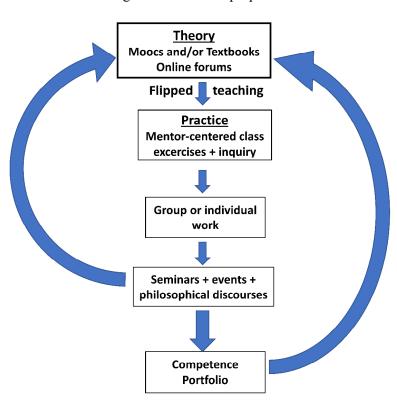
Therefore, the structure of a 'free-progress learning campus' might look like as follows.



However, it is not the architecture with its infrastructures as such which is supposed to be different than any other, but it is the kind of social foundation of the learning and teaching practices which it tries to optimize that is distinctive. There are no (or not necessarily) subjects, classes or faculties like maths, history, languages, chemistry, biology, philosophy, etc., but just projects and eventually a 'faculty' or course designed by the student or a group of students with self-styled curricula and syllabus. There is no compulsion to choose a specialization and one might develop a multiand inter-disciplinary learning path or research. On the other hand, there is no compulsion to avoid specialization either. If someone likes to devote his/her own time to the study of a particular topic, there should be no barriers. A project room and a laboratory could serve the purpose, which

Therefore, we must conceive of a possible daily life learning track in a FPU where the 'person-centered' path is complemented by a "faculty-centered" path, and yet without falling again into compulsory and authoritarian tendencies.

There are several possible self-directed learning contexts that would make this possible. For example, the following graph shows a conceptual structure on which the flip teaching method combined with a competence portfolio-based learning could serve this purpose.



First, students follow the single lectures on the theoretical aspects of a subject via an online course, which could be chosen from among the world's best MOOCs. In addition or alternatively, students teach themselves as autodidacts with standard textbooks or other printed media which are considered the best-structured and intelligible documents by the advisor, the community or eventually recommended by the students of the previous courses themselves.

During this phase, first issues and questions may arise that could be discussed preliminarily in an online forum section. Here, students can

- Project management: individual and collective processing and implementation of plans. Projects are first proposed by the students.
- Barcamps and student-initiated Group Formation Camps.
- Delivering presentations that make the work of the individual or the group known to the rest of the learning community.
- Periodic voluntary GA sessions.
- Participation at conferences, creation of posters, and talks. Mentors
  can advise but which congresses, workshops, and conferences to
  attend, as the content of the poster and/or the talks is only left to
  the students.
- Study experience in other institutions and/or abroad (e.g. in the style of the European mobility for students like Erasmus).
- Open Day.
- Party time!

### The vision of a University of Human Unity<sup>4</sup>

The above FPE paradigm inspired by such a didactical, administrative and infrastructural frame is based on true democratic principles, eventually guided by sociocratic means of systemic consensus and focused on the potential of the individual inside a larger unity in diversity, also suggests a culturally international, all-embracing structure. One can envisage a futuristic educational environment that goes beyond the borders of nations and the culture of its people yet maintains single peculiarities and national spirt inside a larger unity. A facility where students from the same country could live inside their own communities while interacting, studying and living with students of other countries. An education center from kindergarten to graduate and post-graduate classes with hostel-type residential buildings to accommodate visitors of all faiths and nationalities from all over the world.

There would be a section for every country added by national pavilions of the diverse nations, representing their cultures, civilizations and traditions. Diverse blocks not demarcated by walls but by the free development of their own pattern of life so that if students want to know a

<sup>&</sup>lt;sup>4</sup> The concept of a 'University of Human Unity' was largely inspired by the vision of Mirra Alfassa. Refer to the endnote of the book for more details.

#### **Conclusion**

I guess that, at least in the Western world of our times, less than half of the population does jobs that have real social value. Few jobs, professions, and careers produce goods or services of social usefulness that serve to promote a common material, cultural, or psychological state of wellbeing. In the best case, these jobs are simply void occupations that leave no trace. But most are also detrimental to society and the environment as a whole. They are directed towards the production of unnecessary or unhealthy consumer goods, or serve small financial or academic elites, or favour a system which destroys the natural habitat. We still live under the illusion that the energy we put into our job is good for the community. Our culture, our mental categories, and especially our educational and economic system, are such that the vast majority of us work a job that is unnecessary, or even harmful, for the collective benefit, and, moreover, does in no way describe or determine who we are as a person. These jobs – namely, those jobs that make no meaningful contributions to the world – have been called 'bullshit jobs' by the American anthropologist David Gareber. (100)

If we are honest with ourselves, most of us would have to acknowledge that the real reason we pursue a profession is that we need to make a living, or where there is a possibility to climb up the hierarchy, that it satisfies our ego that is thirsty for recognition and prestige. We are rarely willing to admit to ourselves how we live an imprisoned life, or that what we are working for is socially worthless, and eventually even harmful to others.

This state of affairs is a giant matrix, a network of social conditionings that is strongly tied to an economic order from which it is not easy to separate oneself and become self-sufficient. It is, on the one hand, a play in which we largely participate deluding ourselves and, on the other, it is sustained by the inherent structure and rules of our economic and educational system. Therefore, the problem is both individual and systemic.

One of the global challenges for which a lived experience through an FPE can prepare the future generation much better than conventional schools can is the field of economy and finance from the perspective of an ecologically sustainable model. This is because, more than ever, these will require critical, original and creative thinking to find new original and creative solutions – and there can be no true creativity and originality without true freedom.

We live in a world of commercial barbarism, where a savage, self-destructive exploitation of natural resources is the norm. There is also an ever-increasing divide between the super-rich people, who continue to

become richer, and the poorest of the poor, who become even poorer. In the long run, this can't be a sustainable economic and financial model. Such a self-destructive approach to Nature also causes climate change. This predatory behavior, which razes everything it encounters in its path, is the main reason for – and the driving force behind – the mass migrations of millions of poor and desperate people.

So what does this have to do with education? Maybe egoism and greed are so deeply engraved in humanity's nature that they can't be rooted out simply by conceiving of a different school system. We should not be so naïve as to believe that. However, this should not hide the fact that our education system more or less indirectly and implicitly stands behind and nurtures this very same economic financial system. What do people otherwise mean when they say that school and college should prepare one for a future job? On what principles are these jobs based if not those that govern our actual financial system? How does the conventional joboriented school system work? By collaboration or competition? Are the values that stand behind the idea of preparing young people for their future jobs those of liberté, égalité, fraternité?

In conventional schools, and also in most of the so-called alternative and "free" schools, not much encourages these principles. Children attend schools which rely more on principles of competition, selection and consequent segregation between good and bad students. This is something which is automatically determined by high or low grades and by whether or not one has passed one's examinations. On top of that, mobbing in schools has become a pandemic phenomenon. Where do children learn fraternity? Do we teach children in schools to work for a collective common well-being or to strive for their own interests and self-assertion? Do we foster an extrinsic motivation that works with grades, examinations and certificates, cooperation? And does this encourage and inspire responsibility or irresponsibility? Are children taught respect for Nature or indifference to Nature?

In an FPE environment where the freedom of the self-unfoldment of one's inner being is the dominant and central principle inside a non-hierarchical administration and consensus structure where learning occurs not by compulsion but by intrinsic motivation, all these negative aspects plaguing the conventional pedagogical paradigm may not disappear entirely. However, they will, at least, no longer be the driving force in the first place.

Competition is replaced by a spontaneous co-creative cooperation, e.g. by common project-oriented learning, bar camps or open-space meetings where the egoistic interests of self-assertion over others are replaced by

common interest with others inside project-oriented cooperation. Selection criteria and implicit segregation into good and bad students judged by grades and examinations which set the background for a qualitative comparison can be replaced by competence portfolios. Through this approach, one focusses on one's own individual strengths instead of on weaknesses. Indifference to the environment, or the too superficial bookish knowledge of the natural cosmos, is replaced by a lived experience in contact with Nature itself.

However, this can be done only if we have the determination and courage to abolish curricula, grades, examinations and certificates and to open the system to more advanced and effective learning and teaching methods as well as more efficient systems of evaluation. Only by replacing compulsion with freedom of self-expression can children and students, as grown-up researchers, learn to express themselves, their soul factor, by developing their psychological and creative skills. Only if we replace a hierarchical system with a non-hierarchical (or sociocratic) system that allows freedom but also asks for more (not less) individual responsibility can we can hope to raise personalities that will also become more responsible with others and Nature. Only if the educational environment encourages and fosters empathy, compassion and communion can we hope that the next generation, once grown up and taking economic and political command, will have less voracious and barbaric attitudes towards practicing finance and economy and their relation to Nature.

The bottom line is that a coercive, authoritarian and hierarchical system always encourages and inevitably imprints in people's minds all these negative and selfish values typical of a predatory and irresponsible financial and economic system. This is because it is in its very intrinsic essence. If we want a human sustainable and fair trade economic financial system, there will be no way around it: We will have to switch over to a free non-authoritarian education system which emphasizes individual potential, creativity, inspiration and inner values instead of material values. If this does not occur and we maintain the current system and structure as it is, we will hardly be led to a generation of grownups who have more empathy and a sense of collective well-being.

Another example of how an FPE paradigm can be effective in raising a new generation able to tackle modern global challenges is that of conflict resolution. In times when authoritarian tendencies resurface and anti-democratic ideas seem to gain ground, a non-authoritarian and truly democratic – eventually sociocratic – education model is necessary more than anything else.

This myth which says that schools are places where children learn to socialize by learning to peacefully resolve conflicts with each other has been contradicted by facts and proven to be false over and over again. There is virtually no school which does not have to confront mobbing cases. A phenomenon frequently related to this is the numerous school shootings that have taken place worldwide, but especially in US schools. It is a well-known fact that several Islamic terrorists did not come from a background of poverty or ignorance; rather, they were well-educated, sometimes even in high-ranking western institutions. The same can be said of the leftist terrorist organization of 1970s Europe, whose ideology was, in some instances, more or less openly encouraged by academic figures. Sometimes even dictators were educated in educational institutions of advanced democratic countries, though nothing suggests that they learned anything about democratic values. For example, the couple of years that North Korean dictator Kim Jong Un spent in a Swiss school at the age of 14 do not seem to have taught him the values of democracy and human rights.

Bookish learning of democratic principles won't be very effective in transmitting these values. This is because democracy, including respect for others, human rights and human values, must become an everyday experience and practice, not just an abstract and sterile notion to learn from books. We must change the school and university system structure at its foundation, from the bottom up, and transform it from a fundamentally authoritarian structure based on a hierarchical mindset to a democratic – or eventually sociocratic – way of life, into a context where freedom and individual rights are part of the practice. Only where democracy and tolerance are lived experiences composing part of the learning path, in a context which balances freedom and responsibility by teaching means of living in unity in diversity, can a generation become capable of conflict resolution

Could then an FPE initiative be the solution? I'm quite convinced it could be, if not the only solution, certainly a great part of it. Education is a key factor which can no longer remain stalled in its medieval state of development. Whether it will work out in the format presented here, only future will tell for sure. But this is not decisive. What really matters at this stage is to look forward, to begin to have a vision of the future, to experiment, by trial-and-error methods, with failures and defeats, but at least with an attempt to go forward, instead of remaining stuck in the present. The main scope, aim, and target should be the liberation of the inner spirit, of the individual potential, of the real soul in us.

Those who have read so far, and are already engaged with modern alternative forms of pedagogy, might have recognized several aspects and recipes for a progressive form of education already outlined elsewhere. However, the word 'pedagogy' usually refers to education in primary schools, sometimes secondary schools, but never to a high school, college, or university. If humanity wants to progress towards a society of freeminded people and original and creative thinkers, this divide must fall. That is one of the reasons we are still, and have remained for too long, in the Stone Age of education. But this is also the fascinating part of all that. It is clear that much more than a reform is necessary, and that a revolutionary and radical transformation is possible. This present proposal for an FPE paradigm has to be considered only a sketch, a rough idea and a blueprint, it has no pretension to be either ultimate nor exhaustive, even not necessarily correct. But it is also a vision and dream! The main aim of these proposals has been to generate thinking on the subject. If they lead to action, then the objective of this 'manifesto' will have been amply fulfilled. Everyone interested in contributing to this 'adventure of consciousness' is encouraged to participate.

And, last but not least, I will be immensely grateful if you post a Reader Review on the book's product page at the online bookstore where you purchased it. These reviews are an essential resource to understand if and how the message came through and if it resonates with you.

Thank you! — Marco

### **Endnote**

In developing the concept of FPE, the author was partly inspired by the teachings of the Indian poet and spiritual master Sri Aurobindo and his spiritual partner Mirra Alfassa, also called 'the Mother'. In particular, the latter developed the concept of an 'integral education' and first coined the expression "free progress education". Also, the idea of a University of Human Unity was fully adopted here as it was originally formulated by Mirra Alfassa. However, apart from that, the author, despite having immersed himself in their teachings before the appearance of this document, knew almost nothing about their integral education idea. Almost everything, apart from a few amendments and clarifications that followed later, arises from his own experience and is a formulation of it into an intellectual and secular pedagogical vision. Believe it or not, and as incredible and implausible as it might sound, he only later discovered the same principles to be formulated in their teachings from a spiritual and metaphysical perspective. The advantage of the present work is that it points out how no particular faith, in a spiritual or transcendent construct, is necessary to put into practice the principles of an FPE. Also, the idea of a soul and 'soul growth' isn't necessarily something one must take literally as a metaphysical statement. Instead, it can be intended as a psychological growth of our mind and feelings in the sense that modern scientific psychology intends. FPE is a gift to humanity as a whole, well beyond some spiritual teaching, creed or personal conviction about life and the cosmos.

## Acknowledgements

I'm particularly grateful to Allan Bailur who reviewed this document by making a careful proofread and by adding also several helpful suggestions. Without his help this book would probably never have been published!

For input of various kinds I am grateful to Wagish Kumar Rai who has provided invaluable insights and support not only for this book but also to the online project of FPE.

Special thanks also to Brendan Heidenreich for his proof-reading, suggestions and for having pointed out some interesting initiatives of self-directed-education I was not aware of.

# **Bibliography**

- **1.** Student Loan Debt In 2017: A \$1.3 Trillion Crisis. *Forbes*. [Online] 23 Feb. 2017. https://www.forbes.com/sites/zackfriedman/2017/02/21/student-loan-debt-statistics-2017/.
- 2. Gray, Peter. Children's & Teens' Suicides Related to the School Calendar. *Psychology Today*. [Online] 2018. https://www.psychologytoday.com/us/blog/freedom-learn/201805/children-steens-suicides-related-the-school-calendar.
- 3. Work organization and mental health problems in PhD students. K. Levecquea, F. Anseela, A. De Beuckelaerd, J. Van der Heydenf, L. Gisle. [ed.] Elsevier. 4, May 2017, Research Policy, Vol. 46, pp. 868-879.
- 4. Dodgson, Lindsay. PhD students have double the risk of developing a psychiatric disorder than the rest of the 'highly educated' population. *Business Insider UK*. [Online] 8 Auguts 2017. http://www.businessinsider.de/phd-students-could-face-significant-mental-health-problems-2017-8?r=US&IR=T.
- 5. Mental health and suicidal behavior among graduate students. Garcia-Williams, Moffitt L, Kaslow NJ. 5, s.l.: Springer, October 2014, Academic Psychiatry, Vol. 38, pp. 554-60.
- 6. Understanding mental health in the research environment: A Rapid Evidence Assessment. al., Susan Guthrie et. s.l.: Santa Monica, CA: RAND Corporation, 2017.
- 7. Kemsley, Jyllian. Grappling with graduate student mental health and suicide. *Chemical & Engineering News*. [Online] 7 Auguts 2017. http://cen.acs.org/articles/95/i32/Grappling-graduate-student-mental-health.html.
- 8. Grant, Andrew. A paper on field theory delivers a wake-up call to academics. *Physics Today*. [Online] 3 Auguts 2017. http://physicstoday.scitation.org/do/10.1063/PT.6.2.20170803a/full/.
- 9. Smolin, Lee. *The Trouble with Physics*. s.l.: Houghton Mifflin Harcourt, 2006.
- 10. Peter Higgs: I wouldn't be productive enough for today's academic system. [Online] The Guardian, 6 December 2013. www.theguardian.com/science/2013/06/peter-higgs-boson-academic-system.

- 11. Deep Impact: Unintended consequences of journal rank. Björn Brembs, Marcus Munafò. 7:291, s.l.: Frontier in Human Neuroscience, 2013, Vol. 24.
- 12. 'Novel, amazing, innovative': positive words on the rise in science papers. Ball, Philip. s.l.: Nature, December 2015.
- 13. *Beall's list of predatory journals and publishers*. [Online] https://beallslist.weebly.com/.
- 14. A 2017 Nobel laureate says he left science because he ran out of money and was fed up with academia. *Quartz Media LLC*. [Online] http://www.cell.com/current-biology/fulltext/S0960-9822(07)02369-X.
- 15. Nobel winner declares boycott of top science journals. [Online] The Guardian, 9 December 2013. www.theguardian.com/science/2013/dec/nobel-winner-boycott-science-journals.
- 16. Sinkjær, Thomas. Fund ideas, not pedigree, to find fresh insight. *Nature*. [Online] https://www.nature.com/articles/d41586-018-02743-2.
- 17. Moore, R. L. Challange in the classroom (part 2) At 11min 50s. [Online] Washington, DC: Mathematical Association of America: Committee on Educational Media, 1966. https://www.youtube.com/watch?v=menT1EPuHuE.
- 18. Jobs, Steve. Steve Jobs' 2005 Stanford Commencement Address. [Online] www.youtube.com/watch?v=UF8uR6Z6KLc.
  - 19. Gates, Bill. The Road Ahead. s.l.: Penguin Books, 1996.
- 20. *Life is complicated*. Hayden, Erika Check. 1 April 2010, Nature, Vol. 464, p. 664.
- 21. Stem cells: what happened to the radical breakthroughs? [Online] The Observer, Sunday 11 August 2013. http://www.theguardian.com/science/2013/aug/11/stem-cell-research-bioengineering.
- 22. Chinese scientists condemn 'crazy' and 'unethical' gene-editing experiment. *South China Morning Post*. [Online] 26 November 2018. https://www.scmp.com/news/china/society/article/2175105/chinese-scientists-condemn-crazy-and-unethical-gene-editing.

- 23. Ledford, Heidi. CRISPR gene editing produces unwanted DNA deletions. *Nature*. [Online] 16 July 2018.
- 24. Kaiser, Jocelyn. The gene editor CRISPR won't fully fix sick people anytime soon. *Science*. [Online] May 2016.
- 25. Richard Harris. *Rigor Mortis: How Sloppy Science Creates Worthless Cures, Crushes Hope, and Wastes Billions.* s.l.: Basic Books, 2017.
- 26. Hosselfelder, Sabine. Merchants of Hype. *Backreaction*. [Online] March 2019. https://backreaction.blogspot.com/2019/03/merchants-of-hype.html.
- 27. The Human Brain Project. [Online] http://www.humanbrainproject.eu/introduction.html.
- 28. Open message to the European Commission. [Online] http://neurofuture.eu/.
- 29. The Case Against Quantum Computing. *IEEE*. [Online] November 2018. https://spectrum.ieee.org/computing/hardware/the-case-against-quantum-computing.
- 30. Supersymmetry and the Crisis in Physics. May, 2014, Scientific American Magazine.
- 31. What No New Particles Means for Physics. *Quanta Magazine*. [Online] 9 August 2016. https://www.quantamagazine.org/what-no-new-particles-means-for-physics-20160809.
- 32. Fortin J-M, Currie DJ. Big Science vs. Little Science: How Scientific Impact Scales with Funding. [Online] 2013. http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0065 263#authcontrib.
- 33. Simonton, Dean Keith. After Einstein: Scientific genius is extinct. *Nature*. 2013, Vol. 493, 7434.
- 34. Oral History Transcript Sir James Chadwick. Niels Bohr Library & Archives, American Institute of Physics. [Online] http://www.aip.org/history/ohilist/3974 3.html.
- 35. American Institute of Physics's Center for History of Physics, "Rutherford's nuclear world". [Online] http://www.aip.org/.

- 36. Nicholas Bloom, Charles I. Jones, John Van Reenen, Michael Webb. Are Ideas Getting Harder to Find? *National Bureau of Economic Research*. Working Paper No. 23782, 2017.
- 37. Keynes, John Maynard. *Economic Possibilities for our Grandchildren*. 1930.
  - 38. Methodos. [Online] http://methodos-ev.org/.
- 39. Ciobanu, Alia. Revolution im Klassenzimmer Wenn Schüler ihre eigene Schule gründen. s.l.: Herder GmbH, 2012.
- 40. Rousseau, Jean-Jacques. "Emile, or On Education" (original French edition: "Émile, ou De l'éducation"). 1762.
- 41. Shams L., Seitz AR. Benefits of multisensory learning. *Trends Cogn Sci.* 2008, 12(11):411-7.
- 42. Thomas Beery, Kari Anne Jørgensen. Children in nature: sensory engagement and the experience of biodiversity. 2018, 24:1, 13-25.
  - 43. Dewey, John. My Pedagogic Creed. 1897.
  - 44. TED / Ideas worth spreading. [Online] http://www.ted.com/.
- 45. Helfand, David. Designing a university for the new millennium. [Online] https://www.youtube.com/watch?v=DZQe73IXZtU.
- 46. Gilbert, Elizabeth. Elizabeth Gilbert: Your elusive creative genius. [Online] 2009. http://www.ted.com/talks/elizabeth\_gilbert\_on\_genius.html.
- 47. Leadbeater, Charles. Education innovation in the slums. [Online] 2010. http://www.ted.com/talks/charles leadbeater on education.html.
- 48. Cain, Susan. The power of introverts. [Online] 2012. http://www.ted.com/talks/susan\_cain\_the\_power\_of\_introverts.html.
- 49. —. The Rise of the New Groupthink. *Opinion section of The New York Times*. 13 January 2012.
- 50. Neuroscience and education: prime time to build the bridge. Mariano Sigman, Marcela Peña, Andrea P Goldin and Sidarta Ribeiro. 17, 2014, Nature Neuroscience, pp. 497–502.

- 51. Hüther, Gerald. The Neurobiological Preconditions for the Development of Curiosity and Creativity. [Online] http://www.gerald-huether.de/pdf/neurobiological\_preconditions.pdf.
- 52. Center for Contempaltive Mind in Society. [Online] http://www.contemplativemind.org/.
- 53. Horn, Heather Staker and Michael B. Classifying K–12 Blended Learning. [Online] 2012. http://www.innosightinstitute.org/innosight/wp-content/uploads/2012/05/Classifying-K-12-blended-learning2.pdf.
  - 54. Khan Academy. [Online] https://www.khanacademy.org/.
- 55. Mitra, Sugata. TED Weekends; The SOLE challenge. [Online] http://www.ted.com/pages/sole\_challenge#download.
- 56. Kamenetz, Anya. *DIY U: Edupunks, Edupreneurs, and the Coming Transformation of Higher Education*. s.l.: Chelsea Green Publishing, 2010.
- 57. *Lernen durch Lehren*. Jean-Pol Martin, Guido Oebel. 2007, Deutschunterricht in Japan (Zeitschrift des Japanischen Lehrerverbandes), Bd. 12, S. 4-21.
  - 58. Lernen durch Lehren. [Online] www.ldl.de.
  - 59. Udemy. [Online] https://www.udemy.com/.
- 60. The Kin School Tekos Russia. [Online] https://www.youtube.com/watch?v=d94TIzrtQhM.
- 61. Mysteries of the Lightfall a unique school in Tekos. [Online] https://www.youtube.com/watch?v=YW2lFeNkLLM.
  - 62. Lais Canada Natural Learning. [Online] http://www.laiscanada.com/.
  - 63. Lais South Africa. [Online] https://laissouthafrica.wordpress.com/.
  - 64. Lais Schule Natürliches Lernen. [Online] http://www.laisschule.at/.
  - 65. Lais Institut aus Klagenfurt. [Online] http://www.lais-institut.net/.
  - 66. Uniexperiment. [Online] https://uniexperiment.wordpress.com/.
  - 67. Swaraj University. [Online] http://www.swarajuniversity.org.

- 68. Kaospilot. [Online] http://www.kaospilot.dk.
- 69. Knowmads. [Online] http://www.knowmads.nl.
- 70. Open Master's Community. [Online] https://www.openmasters.org/.
- 71. Education Revolution Alternative Education Resource Organization. [Online] http://www.educationrevolution.org/store/resources/alternatives/.
- 72. Gray, Peter. Free to Learn: Why Unleashing the Instinct to Play Will Make Our Children Happier, More Self-Reliant, and Better Students for Life. s.l.: Basic Books, 2015.
- 73. The Alliance for Self-Directed Education. [Online] https://www.self-directed.org/.
  - 74. Agile Learning Centers. [Online] http://agilelearningcenters.org/.
  - 75. Northstarteens. [Online] http://www.northstarteens.org/.
  - 76. Robinson, Sir Ken. [Online] http://sirkenrobinson.com/.
- 77. TED. Do schools kill creativity? [Online] https://www.youtube.com/watch?v=iG9CE55wbtY.
- 78. The Challenges and Benefits of Unschooling, According to 232 Families Who Have Chosen that Route. Riley, Peter Gray and Gina. 14, 2013, Journal of Unschooling and Alternative Learning, Vol. 7.
- 79. Gray, Peter. A Survey of Grown Unschoolers I: Overview of Findings. Seventy-five unschooled adults report on their childhood and adult experiences. *Psychology Today.* 2014.
- 80. Exploring Academic Outcomes of Homeschooled Students. Cogan, Michael F. Sum 2010, Journal of College Admission, pp. n208 p18-25.
- 81. Wile, Dr. Jay L. Homeschooling: Discovering How and Why It Works. [Online] http://www.drwile.com/hs\_how\_why.pdf.
- 82. List of homeschooled people. *Wikipedia*. [Online] https://en.wikipedia.org/wiki/List\_of\_homeschooled\_people.

- 83. Gray, Peter. The Culture of Childhood: We've Almost Destroyed It. [Online] https://www.psychologytoday.com/blog/freedom-learn/201610/the-culture-childhood-we-ve-almost-destroyed-it.
- 84. The decline of play and the rise of psychopathology in childhood and adolescence. Gray, Peter. 3, s.l.: American Journal of Play, 2011, pp. 443-463.
- 85. Gray, Peter. The Decline of Play and Rise in Children's Mental Disorders. [Online] https://www.psychologytoday.com/blog/freedom-learn/201001/the-decline-play-and-rise-in-childrens-mental-disorders.
- 86. —. The play deficit. *Aeon*. [Online] 2013. https://aeon.co/essays/children-today-are-suffering-a-severe-deficit-of-play.
- 87. Children's views on their lives and well-being in 15 countries: A report on the Children's Worlds survey. s.l.: Jacobs Foundation, 2013-2014.
  - 88. SchulFrei Bewegung. [Online] https://schulfrei-bewegung.de/.
- 89. Greenberg, Daniel. *Free at Last: The Sudbury Valley School*. 1991: ISBN 1-888947-00-4.
- 90. Ken Robinson, Lou Aronica. *The Element: How Finding Your Passion Changes Everything*. s.l.: Penguin Books, 2009.
- 91. Wagner, Tony. Tony Wagner's Seven Survival Skills. [Online] http://www.tonywagner.com/7-survival-skills.
- 92. Roksa, Richard Arum and Josipa. *Academically Adrift: Limited Learning on College Campuses*. s.l.: University of Chicago Press, 2011.
- 93. Barriers to Change: The Real Reason Behind the Kodak Downfall. Kotter, John. MAY 2, 2012, Forbes.
- 94. David W. Johnson Ed.D., Roger T. Johnson Ed.D., Dean Tjosvold Ph.D. *Effective Cooperation, The Foundation of Sustainable Peace*. s.l.: Psychological Components of Sustainable Peace, Peace Psychology Book Series 2012, pp 15-53, Springer., 2012.
- 95. Parker J. Palmer, Arthur Zajonc, Megan Scribner. *The Heart of Higher Education: a Call to Renewal.* s.l.: Jossey-Bass, 2010.
- 96. Open source learning. *Wikipedia*. [Online] https://en.wikipedia.org/wiki/Open-source\_learning.

- 97. IBL at Sheffield. [Online] University of Sheffield. http://www.sheffield.ac.uk/ibl.
  - 98. Sociocracy. [Online] http://www.sociocracy.info/.
- 99. Rainbow Mountain Childern's School. [Online] http://rainbowcommunityschool.org/.
- 100. Ackoff, Russell. System thinking speech. [Online] https://www.youtube.com/watch?v=EbLh7rZ3rhU.
  - 101. Wayfinding Academy. [Online] https://wayfindingacademy.org/.
- 102. Masi, M. Transcript from a Cosmos Cafe talk on FPE. [Online] https://www.youtube.com/watch?v=fGIXndMRzcU&t=10s.
  - 103. Graeber, David. Bullshit Jobs. s.l.: Simon & Schuster.

#### \*About the author

Marco Masi was born in 1965 and attended the German School of Milan, Italy. He graduated in physics at the university of Padua, and later obtained a Ph.D. in physics at the university of Trento. He worked as a postdoc researcher in universities in Italy, France, and more recently in Germany, where he worked also as a school teacher for three years. After



he had authored some scientific papers (http://ow.ly/snz6u), his interests veered towards new forms of individual learning and a new concept of FPE originated from his activity both as a tutor in several universities and as a high school teacher, but especially from his direct, lived experience of what education should <u>not</u> be. From this originated his desire to write this book on education. He is also interested in metaphysical and philosophical ruminations and loves walking in the woods.

#### **Contact information**

#### **Personal contact**

Email: marco.masi@gmail.com