

# Educational Guild Systems.

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# Introduction

This essay gives a historical overview of how modern educational systems have evolved from their inception in the middle ages to the present time.

Part I details the modern history of educational systems. The evolution of both higher educational systems and what we today call k-12<sup>1</sup> schools are covered with an emphasis on Arab, European, American, and Chinese systems. Arab educational systems are described only as they initially evolved in the early middle ages, and this helps set the stage for understanding how these systems influenced the development of universities in Europe. European k-12 systems germinated in a way which was seemingly independent from the influence of other countries, and their establishment served a purpose which was somewhat unique to the needs of European states at the time, and which had surprisingly little to do with the transference of knowledge. Like universities, educating the youth came to be seen as a means to achieve social and political organizational agendas. Whereas for k-12 there is a national purpose behind such ulterior agendas, for universities this ulterior agenda does not serve a national purpose so much as it does private interests. Both modern American and Chinese systems have largely been influenced by the educational systems which were evolved in Europe by the twentieth century, and the specific trajectories these two countries have taken throughout the twentieth century is covered in some detail.

Part II describes the function of European guilds in the middle ages and how they helped shape professional society (i.e. the notion of a professional in fields of work). The university system as it evolved in Europe since in the thirteenth century became synonymous with a scholars guild system, and it is argued that this mostly remains the case today. A broad discussion on the pros and cons of guild vs. free-market systems is largely avoided in favor of simply addressing the question of whether university systems today continue to operate as guilds. To this end the recent work of Sheilagh Ogilvie, *The European Guilds: an Economic Analysis* (2019) is mostly relied upon for historical content to which modern university practices can be compared/ contrasted against. The evolution of the medical profession in America during the late nineteenth and early twentieth centuries is then used as an example which relates how educational guild systems, primarily through the practice of licensing, enable the professionalization of a field of work. It also is a good case which helps clarify the subtle and often overlooked differences between professionalizing a field of work and simply achieving a high degree of competence in a trade or conducting oneself in a trustworthy and honorable fashion. Following the work of Harold Perkin, the defining facets of professionalizing a field of work are argued to be establishing systemic methods which allow for A) exclusivity, i.e. a means of distinguishing between 'insiders' vs. 'outsiders' and B) the management of human capital. Establishing exclusivity in a trade has parallels to guild practices, and the management of human capital has parallels to feudal customs which were prevalent during the age and which may have given incentive to the rise to guilds (many have argued that guilds provided a counterbalancing force to feudal customs).

Part III covers the evolution of higher educational lobbying efforts in recent decades, accreditation in higher education, and some movements which are gaining momentum in the world of k-12

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<sup>1</sup>the term 'k-12' will be used throughout this paper for lack of a more accurate description. Historically 'high-school' often ended much sooner than the age of 18. In America it was extended, some say because it would help mitigate competition for jobs in the labor market by keeping young adults in schools a few extra years.

education such as LFP's (Low Fee Profit schools) in foreign countries and charter schools/ voucher programs in the U.S.

In closing the concept of what a merit system is will be considered as will the historical relation between change, catastrophe, and the establishment or alteration of educational systems – a thing of particular relevance considering the mobilization of learning practices which the experience of COVID has helped catalyze.

# Part I:

## Educational Systems in the Middle Ages

### Arab Systems

“Before there was an education system, there was education.. ”

—Zander Sherman, *The Curiosity of school*

The system of licensing to teach via degrees had already been in place for centuries among Islamic cultures prior to the development of the concept of a university in Europe. In the Islamic case, there were no governing bodies other than the teachers themselves who controlled the granting of *ijaz* (a license to teach). Anyone could teach, but to teach a specific doctrine and to be recognized as authoritative one needed to undergo a period of apprenticeship and obtain a license. Yet obtaining a license alone was not enough to ensure that a prospective teacher accumulated pupils to receive his lesson; lacking any formal and authoritative organization through which education might be systematized, it was a free-market system in which consumers of education selected the teachers which they gravitated to. Being as tradition and religion were highly valued in all teachings, the minimization of the number of generations through which a doctrine had been transmitted from the time of the prophet Mohammad to the time of teaching was highly valued, hence an elder who taught a doctrine which was known to have been transmitted via a succession of elder teachers was considered the most prominent among teachers. Beyond this the ability to teach was largely based on ones innate abilities as a teacher to draw a crowd. Teaching occurred in whatever place was convenient; just outside of the teachers home, the market, a garden, etc., and it was often the case that people of a wide range of ages and abilities attended these lectures[7, 35]

Scholars were well traveled as knowledge gained from books was considered only part of the knowledge that people valued in their teachers; much knowledge at the time was gained from interactions rather than texts.

“ This would be doing an injustice to what is perhaps the most profound reality of all education, i.e. indirect education. In ancient societies in particular, children and adolescents are mainly socialized by family and community structures. Education begins within the family circle, but it is also pursued through the influences which the individual experiences, under the effects of the meetings, readings, debates and controversies which animate the lives of the groups which surround him. This evidently includes a movement of circulation of ideas which come to him outside the channels of direct education. ”

— Johannes Pederson , ‘ *The Islamic Preacher Wāiz, Mudhakkir, Qāss, as quoted in*[7] ’

Simple life experience was considered a prerequisite to the accumulation of wisdom, but also it was a matter of oratory having a higher value than mere written words; one needed to hear not just what was being said, but *how* it was said in order to grasp the true meaning of a lesson and assess the character of the teacher. Dictation was considered an art. Accordingly, vowel-signs which allowed recorders of a lecture to convey this to some degree or another were developed[36]. Arabs

were of course themselves often nomadic in their ways of life, and this did not hinder their pursuit of knowledge which had been valued since at least the time of Mohamed, "The nomads of this region of the Sahara possess books, precisely as do the settlers; nor do they abandon them even in their wanderings; their migratory habits do not prevent their devoting themselves to intellectual activities, or allowing their children, even girls, to share in such studies." [7]

That it not so say, however, that the teacher was always respected. While references to the proliferation of elementary schools are to be found soon after the time of Muhammad, and citizens of a given town might go so far as to give a parade for the children who graduated, teachers themselves, at least in the beginning, came to be loathed. Perceived as a means to dodge the army, and especially as teachers began demanding money for their services of teaching the Q'ran, teaching garnered for itself a bad reputation,

"...The prevailing attitude of Muslim society towards the teacher of children... is represented in Arabic literature as one of extreme disrespect. His position is on a level with that of weavers, blood-letters, and other despised trades. Teachers were universally spoken of as stupid and brainless class. "Seek no advice from teachers, shepherds, or those who sit much among women" – an adage which, as applied to teachers and weavers, and with the addition of the explanatory clause, "for God has deprived them of reason and withheld His blessing from their trade," is quoted as a saying of the Prophet. The phrase 'ahmaq min mu'allim kutta~b ('stupider than a schoolmaster') – with variations in the working – has passed to a proverb.

...The teacher's occupation, in fact, works almost like a specific for generating stupidity....

"The teachers of our children are the vilest among you; the most deficient in pity for the orphan, the most churlish towards the poor." "What thinkest thou of teachers?" asked Abu~ Huraira of the Prophet, whose answer was: "Their dirham is forbidden property, their livelihood is unjust gain, their speech hypocrisy "

— Ignaz Goldziher , ' *Muslim Education, as quoted in [7]* '

As compulsory elementary schools took root in later centuries a conscious effort was made to inculcate into the minds of the public a different perception of the teacher. In 1272 for example, Al-Qurtub, a well known commentator of the Qur'an at the time, wrote, "The best of men, and best of all who walk the earth, are the teachers. When religion falls into decay, it is the teachers who restore it. Give unto them, therefore, their just recompense; yet use them not as hirelings, lest you wound their spirit. For, as often as the teacher bids the boy say, "In the name of Allah, the merciful, the compassionate," and the boy repeats the words after him, God writes for the teacher, and for the boy and his parents, and record which shall surely save them from the Fire." [7]

As for higher education, Arab cultures were influenced by the educational culture of the Greeks. Though they'd try to reinterpret much of it so as to avoid western influences, increasingly they found learning a necessity to rule over the empires that they conquered (and this in turn became added incentive to resent teachers). Islamic nations however made a number of highly original contributions which have proved to be foundational to a number of academic fields to this day. Indeed, many of the greatest centers of learning from the ninth to the twelfth century were Islamic, and – in what might be considered a European twist to the idea of higher education – it was by European scholars visiting such places (e.g. those in Cairo or Spain) that, when combined with the European notion of

a guild, the notion of a university began to germinate.

## European Systems

“ From these beginnings the university organization has persisted and grown and expanded, and today stands, the Synagogue and the Catholic Church alone excepted, as the oldest organized institution of human society.” ”

—Ellwood P. Cubberley, ‘ *The History of Education* ’

“Charlemagne sought to impose a new culture on his empire, a combination of Roman, German, and Christian elements. He thought to begin with general education; he found, as do the counselors of today’s emergent nations, that he must first make teachers. ”

—Morris Bishop, ‘ *The Middle Ages* ’

Since the downfall of Rome Europe lacked centralized governments as it did fortified settlements. Consequently, barbaric German tribes were able to invade these territories and subjugate their inhabitants. The learning systems established in the Roman days were nearly decimated until the time of Charlemagne whose arrival signaled the end of the ‘dark ages’ (AD 600 – 850). Charlemagne established a court school within his palace, he set scribes to preserving Latin classics, and revived the practice of literary aptitude as being a prerequisite for roles within government. Though in 802 he made it a law that laymen attend school and learn to read, by this he intended only for the freemen of the courts, and it is open to question whether this law applied to children of peasant laborers. By adopting the Germanic practice of vassalage – of granting his close associates large swathes of land in exchange for their loyalties–, Charlemagne created a literate aristocracy who would see learning as a means of power[3].

It is here we see the beginnings of the modern practice of equivocating the leisurely act of versing oneself in letters with merit. Education began taking precedence over hard earned experience or natural competencies; “Charlemagne having substituted merit for favoritism in his realm, promoting to be bishops and abbots the most learned men of his time, many of these became zealous workers in the cause of education and did much to keep up and advance learning after his death.”[9] Though a period of anarchy followed Charlemagne death, this practice would live on as would the system of vassalage which evolved into feudalism.

Though during the high middle ages (1000~1250) travel between towns was considered a dangerous thing, traveling scholars were known to be under the protection of nobles and monarchs[8]. The German emperor Frederick Barbarossa (1122~1190) granted scholars more than mere protection; he went so far as to grant them special courts for what crimes they were charged with, and he exempted them from taxes and military service alike. As mentioned already, these scholars traveled beyond the realm of western influence into Spain and Cairo to observe Islamic teaching practices. In particular Islamic temples of learning or the tower of wisdom seemed to insemminate in them the idea for a centralized institute for learning[10]. With guild systems already evolving in Europe, as scholars and teachers became numerous in many places throughout Europe by the thirteenth century, they developed the concept of *universitas* – a corporation of scholars who endow a license to teach within

the universitas. In the beginnings the universitas was not associated with any building but only with the scholars themselves.

“ These associations of scholars, or teachers, or both, born of the need of companionship which men who cultivate their intelligence feel, sought to perform the same functions for those who studied and taught that the merchant and craft guilds were performing for their members. The ruling idea was association for protection, and to secure freedom for discussion and study; the obtaining of corporate rights and responsibilities; and the organization of a system of apprenticeship, based on study and developing through journeyman into mastership. ”

—Ellwood P. Cubberley , *‘The History of Education ’*

Debate and oratory were as in Roman days a central part of education at that time. Popular centers of oratory would draw such crowds that when chairs were set to accommodate them a stadium was formed, hence the rise of the *Stadium Generale* – the precursor to what we now call a university. It was in Bologna that the term universitas was first used, and it was here that students ran the institution democratically; students elected the rector, employed the professor, and in general controlled the affairs of the school. In contrast, Paris and Oxford adopted a model in which teachers were in control. It is probably the case that the system of degrees originated with the student guild[10], and this is a thing we’ll see is in line with the developing of medical licensing in which case it was the young and insecure graduates who felt the need to create labels of meritocracy which set them apart from others. The only degrees offered at the time were that of master or doctorate, but at this point the two titles held equal rank. Bachelors designated a state of apprenticeship rather than a degree.

As universities legitimized their existence so too did they begin to solidify guild privileges such as that only universities recognized by the monarchy are allowed to endow scholars with certifications which allowed them to teach, that these universities had liberty to guide their own studies (freedom of thought), and cessatio – the ability of the university to suspend lectures when disputes arose with the city or church. As noble lords and the church were both solidifying their powers universities became somewhat of a safe-haven from the two. According to Cubberly,

“ Virtually a new type of members of society – a new Estate – evolved, ranking with Church, State, and nobility, and this new Estate soon began to express itself in no uncertain tones on matters which concerned both Church and State. The universities were democratic in organization and became democratic in spirit, representing a heretofore unknown and unexpressed public opinion in western Europe. They did not wait to be asked; they gave their opinions unsolicited. “The authority of the University of Paris” writes one contemporary, “has risen to such a height that it is necessary to satisfy it, no matter on what conditions.” The university “wanted to meddle with the government of the Pope, the King, and everything else, ”

—Ellwood P. Cubberley , *‘The History of Education ’*

Though it is difficult to trace the spread of the university after its initial inception in the early thirteenth century, by the year 1400 there were approximately forty universities spread across Europe[8].



Of course universities at this time concerned a relatively small portion of the populace. It was instead the education and conditioning of the church which influenced the majority of people. Being as the powers of feudal lords and the church were as of yet still tentative things, there was incentive for the church to solidify its powers by indoctrinating its religious beliefs into citizens and to prevent their amalgamation into any opposing force by encouraging a philosophy of individual responsibility for salvation. The Lateran council for example, in 1215 made penance an individual and compulsory thing, but before this time penance had been a rare and public event[11]. The practice of ‘indulgences’ in which the church would essentially sell spiritual favors to the faithful (e.g. to reduce the time of purgatory which a loved one endured) was common.

The church had already received a significant blow to its dogmatic ways in the twelfth century with the scholar Peter Abalard who developed a method of inquiry similar to Socrates in that he asked a lot of questions and facilitated a lot of debates but offered no answers himself. This, together with the fact that the crusades had brought many Christians into contact with the Islamic world – a thing which challenged their preconceptions of the spiritual world –, gave rise to a spirit of inquiry. The church responded by arming itself with well educated theologians who were thoroughly prepared to admit that there are two sides to any story yet who were still able to defend the doctrine[12].

Fed up with the usury of the church in the form of taxation and indulgences, a theology professor by the name of Martin Luther in the month of October of the year 1517 nailed a petition to the door of the Wittenberg’s Castle Church. In the petition were 95 points which collectively asserted that churches practices were not justifiable. Thanks to the wonders of the printing press which had been invented about a half century earlier, probably to his surprise Luther’s petition was reprinted and disbursed throughout Germany within a matter of weeks. This in turn gave rise to the protestant revolt in which the central issue was whether it was the church or the bible that held authority. Protestants believed it to be the latter, and they accordingly required that every person be endowed with an education which enabled them to read. Elementary schools proliferated as did attempts to make schools compulsory, but in a less overwhelming fashion than compulsory schooling is today with its six-hour long days. In Martin Luther’s own words,

“ A new world has dawned in which things go differently. My opinion is that we must send boys to school one or two hours a day, and have them learn a trade at home the rest of the time. It is desirable that these two occupations go side by side. At present children certainly spend twice as much time playing ball, running the streets, and playing truant. And so girls might equally well devote nearly the same time to school, without neglecting their homeduties; they waste more time than that in over-sleeping, and in dancing more than is proper. ”

— Martin Luther , ‘ as quoted in [8] ’

Puritans were a specific religious sect within Protestantism who held a firm belief in the idea of covenant ideology (e.g. god gave mankind a relative heaven on earth, but by Adam choosing to eat the apple the covenant was broken), and they would have a dominant influence on the beginnings of education in America during the seventeenth century[13].

Influenced by the ideas of Francois Bacon, an educator by the name of Wolfgang Ratke (1571 – 1635) at the age of forty addressed the highest members of the Imperial council of Germany. Ratke proposed an educational reform experiment, the results of which he promised would be the teaching

of languages to children in a very short amount of time and the introduction of a peaceable means of uniform speech, a uniform government, and uniform religion throughout Germany. Impressed with his proposal, the princes gave Ratke an opportunity to put his ideas to the test in Kothén, Germany. Prince Lewis of Anhalt-Kothén organized a band of teachers to be trained by Ratke himself.

“ They were sworn to secrecy regarding the new methods. Buildings were provided at Kothén and about five hundred children received into the schools. Ratke apparently lacked all power of administration and this experiment, like that of Augsburg, proved a failure. Furthermore, Ratke was thrown into prison by the enraged Prince Lewis, who believed he had been duped by an impostor. While in prison Ratke signed a paper to the effect that he had attempted more than he was able to accomplish. A later experiment in Magdeburg met with similar results. ”

— Patrick J. McCormick , ‘ *History of Education* ’

From Ratke’s *Methodus Institutionis Nova*, published at Leipzig, 1617 a few of the primary points of his method are as follows,

1. In everything we should follow the order of nature.
2. The same thing should often be repeated.
3. Uniformity in all things – in methods, books, and discipline.
4. The thing itself should come first, then whatever explains it, things before words.

Obviously Ratke’s methods have the beginnings of today’s common and compulsory curriculum. Of course by ‘natural order’ a number of interpretations are possible, but in light of other educational philosophies which prevailed at the time we might infer that by this Ratke means some kind of linearity, i.e. a definite sequence in which understanding was to be achieved. German historian of education Karl von Raumer classified a number of preeminent progressive educational reformers of the seventeenth century including Ratke as Innovators, and generalized some of the reforms they championed, two of which were “That education should proceed from the simple to the complex, and the concrete to the abstract” and “That the study of real things should precede the study of words about things.”[12]

Though Ratke’s experiment was a failure in terms of learning outcomes, it nevertheless proved extremely useful in the way of producing uniformity. Ratke’s influence lived on in the likes of Johann Amos Comenius, Duke Ernest of Saxe-Gotha, and others. Though Johann Gottlieb Fichte (1762~1814) made no explicit mention of Ratke, the ideas he espoused were eerily parallel to his.

With the Prussian army decisively defeated by Napoleon’s forces in the Battle of Jena (1806) Fichte found a receptive audience to the ideas presented in his book *Attempt at a Critique of All Revelation* (1792). Fichte professed to know why Prussia had been defeated as well as how to ameliorate this outcome. In Fichte’s view the problem was free-will itself; “The very recognition of, and reliance upon, free will in the pupil is the first mistake of the old system”. Bertrand Russell summarized Fichte’s ideas as “Education should aim at destroying free will, so that, after pupils have left school, they shall be incapable, throughout the rest of their lives, of thinking or acting otherwise than as their schoolmasters would have wished.”[14]. Prussia adopted Fichte’s methods and it did much to improve military matters.

As we will see, the system of education which Prussia adopted would go on to be the most influential model in the world today – especially for America.

## American Systems

“ Cannot we let people be themselves, and enjoy life in their own way? You are trying to make that man another you. One’s enough. ”

— Ralph Waldo Emerson on education

“ Let him be taught to love his family, but let him be taught, at the same time, that he must forsake, and even forget them, when the welfare of his country requires it. ”

—Benjamin Rush on education

The U.S. is somewhat of a unique case in terms of its motivation as far as education goes. Being a newly colonized territory and having just won its independence from Britain, the unity and stability of the states were preeminent issues in the minds of leaders. There was by then an appreciable literature which had developed from experience in Europe on how institutions which were capable of affecting the ways in which people formed associations and the habits they adopted might be a means of avoiding the extremes involved in either local rule (e.g. feudalism) or rule by strong central governments (e.g. monarchies). Such theories of nationhood might be likened to ‘cooperative governance’; how to condition the people such that they will willingly submit themselves to a functioning democracy.

There were at least two known ways to achieve institutional indoctrination beyond educational systems; private property and the implementation of credit systems. Intellectuals by then were aware that allowing such a concept as private property to take root in a populace had an effect which was as distinct as it was potent. In the words of J.G.A. Pocock describing the conditioning effects of property among untamed German tribes, “..The sense of honour – of an exposed and vulnerable personal identity – which Gibbon tells us was all that the tribesman understood of liberty, would have been transformed into a sense of law and a capacity for military discipline by an awareness of responsibility for his material possessions and for the relations with others which possession involved.”[15]. As for the introduction of credit<sup>2</sup>, it had a similar effect,

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<sup>2</sup>Also see the discussion on emancipated Russian serfs in my essay *Reinventing Communalism*.

“ The National Debt was a device permitting English society to maintain and expand its government, army and trade by mortgaging its revenues in the future. This was sufficient to make it the paradigm of a society now living to an increasing degree by speculation and by credit: that is to say, by men’s expectations of one another’s capacity for future action and performance. Since a credit mechanism was an expansive and dynamic social device, the beliefs men had to form and maintain concerning one another were more than simple expectations of another’s capacity to pay what he had borrowed, to perform what he had promise; they were boomtime beliefs, obliging men to credit one another with capacity to expand and grow and become what they were not.”

...not only was every man judged and governed, at every moment, by other men’s opinion of the probability that not he alone, but generations yet unborn, would be able and willing to repay their debts at some future date which might never even arrive. Men, it seemed, were governed by opinion, and by opinion as to whether certain governing fantasies would ever become realized ”

—J.G.A. Pocock , ‘ *Virtue, Commerce, and History* ’

Predictably, a third means of affecting a large-scale change within a populace was recognized to be education. But the founding fathers were unsure as to what kind of system would be appropriate for the United States and what such a system might look like. Accordingly, the American Philosophical Society, members of which included the likes of Washington, Jefferson, Madison, and Rush, contrived ‘The Great Contest’ which was to be the first national contest among scholars in the U.S.. The essay prompt was to “[Write] an essay on a system of liberal education, and literary instruction, adapted to the genius of the government, and best calculated to promote the general welfare of the United States; comprehending, also, a plan for instituting and conducting public schools in this country on principles of the most extensive utility.”[37]

Of the three selected top finishers, none failed to mention in some way the idea of a national university to which all others would defer – a notion which had gained some momentum under Jefferson’s presidency. More than just a reading of the ‘classics’ in philosophy (e.g. Aristotle, Socrates, etc.) a liberal education at the time implied a moral one, i.e. a distinction was deliberately being made between liberal and a practical education or ‘literary’ education which at the time was only vaguely defined, but was intended to encompass subjects outside of classical moral philosophy such as Art, Math, History, etc. Leaders of the time sought to make a liberal education a prerequisite to leadership.

## **Lancaster’s Monitorial system**

In what was probably the first large-scale attempt at a systematized education system in America, Joseph Lancaster’s Monitorial system became the standard method of primary schooling in New York for a good portion of the first half of the nineteenth century. By the age of eight Lancaster had taken an interest in educating Jamaicans for charity work. Having observed some educational methods while traveling in India, at the young age of twenty, in 1798 he returned to London and opened a school for poor children in his father’s house. He was enthusiastic, passionate, and by all accounts somewhat gifted at his work,

“ He had many of the qualifications of a great teacher—zeal, self-confidence, ingenuity in devising methods, intuitive insight into the nature of children, an ardent love for them, and rare power of managing them. He threw himself into the work of his new school with characteristic enthusiasm. For the good or delight of his pupils no labour was too severe and no sacrifice too onerous. For them he spent body, mind, and estate (and as much of the estate of other people as they could be induced to part with); on holidays he led large parties of them for excursions into the suburbs; on Sundays, from forty to sixty of them, bringing their own bread and butter, used to take tea with him; and during the severe winter of 1799 – 1800 he fed and clothed some sixty or eighty of them. "Lancaster was a born organizer of children. He left nothing to chance or caprice. To him we owe the pregnant mottoes: 'A place for everything and everything in its place.' ”

—John Reigar , ‘ *The Lancasterian System of Instruction in the Schools of Newy YorkCity*’

By 1806 the Lancastrian, or monitorial system – a system originally developed in India which allowed for just one teacher to monitor hundreds of pupils by dividing them into groups that were to be led by ‘monitors’ – had spread to most all European countries and both South and North America. Students would stand in a semi-circle and repeat the monitors dictations; rote memory was the method of learning.

While Lancaster prided himself on the progressive practice of sparing children the rod, in its stead he implemented a system of shame and physical constraint. Students were given tickets for good behavior and achievement, and bad behavior came at a cost in tickets. If a student had no tickets remaining, they were punished; disobedient students might have a log placed on their back which would become too strenuous if they made the slightest deviation from an upright position as it would throw the log out of equilibrium; students might be shackled to a desk or shackled at the feet – sometimes at the neck alongside other offenders – and made to walk around the school until tired, and in extreme cases they might be placed into a basket or sack and hung from the roof. Interestingly, it was found the best way to tame the most unruly was to make them monitors themselves[16, 13]. While such methods may seem cruel, by comparison to the use of a rod or a lash, to many at the time they were deemed acceptable.

Being as schools of the time typically were lacking a significant and steady source of funds, this method which allowed for hundreds– no more than a thousand by Lancasters’ recommendation – of students to be led by one teacher had obvious appeal. Further advantages were that it granted students significant experience in teaching; the monitorial system was the primary means of educating teachers until the establishment of the normal college in 1870. One other notable advantage to the method was the extreme flexibility of grading and progression; students were assessed by monitors and they advanced when they had mastered a given task. This is in contrast with today’s methods which regularly passes students onto another task before complete mastery is achieved.

What ultimately contributed to the monitorial systems downfall was the superficiality of the monitors knowledge compared to a teacher who’s role had been relegated to what was really nothing more than a glorified monitor-of-monitors. The school board of New York professed it was “increasingly suspicious” of the monitorial systems ability to handle what they had intended to become a more advanced curriculum. The board soon implemented ward schools and restricted by law the further growth of monitorial schools, of which would disappear within ten years[16].

Though Lancaster's model was bound to be supplanted by Horace Mann's common school which placed the teacher at the center of education and students on an even footing, it did not fail to have a tremendous impact on today's school systems,

"Its consequences, direct and indirect, are still felt in the schools with respect to the ideals of the community and the standards of the teacher. Conformity to system and uniformity in school administration and method became a fetish. The faithful adherence to the manuals or the syllabi prepared by the school authorities rather than adaptation to the interests of the pupils and the community became the prime duty of the teacher. This traditional allegiance, the result of many years of an unquestioning routine, remains a serious obstacle to the success of progressive administrations.

Upon the theory that the principal is not a teacher but an administrative officer, schools have become far larger than even the limit set by Lancaster, which was a thousand; and the principal remains what he was in the Lancasterian school, the director of the school organization, not the teacher and guide of each pupil. "

—John Reigar , ' *The Lancasterian System of Instruction in the Schools of Newy York City*'

## **Horace Mann's Common school**

The changes in New York drastically reduced the teacher to student ratio, and so there ensued a near continual need for teachers. Being as this was typically an underpaid position, and women at the time were willing to accept lower pay in exchange for escaping the drudgeries of housework, many women began to take to teaching.

Lancaster had been among the first to suggest to members of the federal government that schools be utilized to resolve the 'Indian problem', but when he suggested it he had in mind more of a unification than a one-sided assimilation; he suggested Indians be used as teachers, and that agricultural schools be set up to educate them on sedentary farming methods. While it is true there were a number of people who were outright hostile to Indians, and some simply feared their undomesticated ways going unchecked, others simply recognized that the changes sweeping over the nation were irreversible, hence education was the Indians best hope; they would assimilate or perish.

As the Commissioner of Indian Affairs noted in 1851, "Indians are too wild to be of much utility; a proper program through concentration, domestication, and incorporation would ultimately force the Indians into the great body of our citizen population." Over the next few decades boarding schools which separated children from their mothers and tribal heritage were imposed on children in an attempt to acculturate them according to western ideals. The Carlisle Indian School opened in 1879; here Indian kids were sent to live and work on white farms so as to separate them entirely from their tribal heritage. By 1891 ~ \$2,500,000/yr. was being spent on educating Indian children, and a total of 225 day schools and 148 boarding schools had been established with 20,000 Indian children in attendance[13].

Established settlers faced another problem which threatened their way of life; European immigrants. As one concerned citizen at the time put it,

“ It is astonishing to witness the vast tide of immigration, yearly flowing in upon us, from all nations. The whole number...can hardly be less than one hundred thousand annually,...

I have indeed sometimes thought it was necessary that our naturalization laws should be altered and modified, so as to exclude the foreigner from the polls. But the time for this action is now past, and in fact morally, it would be of no avail. So long as they remain a distinct social race, their children will grow up to years of maturity, and come to the polls, with the same notions, prejudices, and peculiar views, which their fathers entertained...what remains, but the method proposed by this society? In my opinion there is none so effectual. Let us take their children then, and educate them in the same schools with our own, and thus amalgamate them with our community ”

—From Transactions of the College of Teachers (Cincinnati), 1861<sup>a</sup>

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<sup>a</sup>10As quoted in Allen O. Hansen  
emphEarly Educational Leadership in the Ohio Valley (Bloomington. Ill., 1923), as quoted in [13]

We have seen the impact that the implementation of a nationally standardized system had in the case of Prussia. Prussia had in fact become an example to which much of the modernizing world now looked to; in the opinion of Zander Sherman, most of the modern world today has essentially adopted the Prussian system of education which was utilized to turn a nation of citizens into ‘reserve soldiers’[14]. A number of reports on the Prussian system of education began to flood into the U.S. throughout the nineteenth century; John Griscom in 1819, Victor Cousin in 1831, Henry Barnard in 1835, and Calvin Stowe in 1837. We may add to that list the godfather of the common school movement; Horace Mann, who championed the Prussian system before ever visiting the place.

Mann championed a standardized (or ‘common’) school curriculum being implemented on a national scale to serve the needs of industry. In his own words, “The commercial tone prevalent in the city...tends to develop, in its schools, quick, alert habits and readiness to combine with others in their tasks. Military precision is required in the maneuvering of classes. Great stress is laid upon 1) punctuality, 2) regularity, 3) attention, and 4) silence, as habits necessary through life for successful combination with one’s fellow man in an industrial and commercial civilization.”[5].

While people, especially immigrants, often resisted the idea of giving up their children to an institution which did not perpetuate their own cultural values, national instability and the Civil War gave Mann and his supporters the necessary firepower to overcome all resistance. The unifying power of educational institutions was depicted as being simply too necessary at a time when the unity of the United states was still a very tentative thing. As one visiting French bureaucrat noted,

“ Suppose the immigrants were left to their own inspirations, and instead of public schools should find only private institution; everything would be different: each person would keep up his own customs or preferences; each group would constitute itself separately, preserve its own language, traditions, religious customs, its old national spirit, and its prejudices. In denominational schools the distinction between rich and poor, paying and non-paying pupils, would necessarily be perpetuated and emphasized. And without fusion of races, without a uniform language, without equality of social classes, without reciprocal toleration among the different denominations, and, above all, without an ardent love for the new country and its institutions, would the United States still be united? ”

— Ferdinand E. Buisson , *‘Report on the French Commission on American Education, 187911’*

The establishment of common schools led to a somewhat dramatic increase in the demand for teachers. This in turn predictably led to issues of ‘quackery’ in which individuals who were not qualified for the task advertised themselves as being competent to perform it. Normal schools began to be established in the 1870’s as a means of legitimizing education by training teachers for common schools. Common schools, though standardized and staffed by competent teachers, still relied on the methods of recitation and rote memorization rather than critical inquiry. By the turn of the century it became a wide-spread sentiment that these schools did not prepare children for society or meet the individuals interests or developmental needs, and that they allowed much talent to go to waste.

## **The Quincy Method**

“ Those who seek for some special and peculiar method or device in the Quincy movement will never find it. The systematic cultivation of selfishness by bribery – percents, material rewards, and prizes – was banished. The dark clouds were cleared away, and a higher motive, a nobler ideal, came into view. The human treatment of children cannot be brought about by any particular method. It must spring from a deep sympathy, backed by courage and skill. The old fashioned, stiff, unnatural order was broken up. The torture of sitting perfectly still with nothing to do was ruled out, and in came an order of work, with all the whispering and noise compatible with the best results. The child began to feel that he had something to do for himself, that he was a member of society, with the responsibilities that accompany such an important position. we did not banish text-books, we added to them; change, not banishment, was the order. ”

—A co-worker of Francis W. Parker[38]

Immigration, the introduction of the railroad, and industrialization of mining operations had, since the 1840’s begun to swell the population of Quincy Massachusetts. Poor management of an unplanned growth spurt had led the town into debt. When coupled with educational reforms and increasing salary demands of teachers, the cost of educating children more than doubled between 1863 and 1873. As a school committee was formed and they began to investigate the prospects of educating an increasing number of school-aged children in Quincy under strained finances, what they quickly found was a pervasive problem of poor performance and scarce attendance. Yet the political meetings of Quincy had witnessed a breakdown in the processes of productive debate and



there was a perceived general decline in the collective intelligence of meetings (a process which perhaps somewhat naturally accompanies growth of a town) which rendered the passing of legislation difficult. In response, Quincy's governing officials adopted a committee system which would consider proposed articles then report their recommendations to the town and put the matter to a vote. The committee system in turn allowed for the creation of a coordinated policy and largely disengaged the public from the political process, which in turn made passing legislation much easier.[39].

Among the first propositions of the school committee was to establish a truant school and hire a super-intendent – a propositions which had previously be resisted by people[38]. After a disappointing interview process which attracted a number of 'quacks', at the last minute a teacher who had recently returned from studying pedagogy in Germany by the name of Francis W. Parker showed up and pitched his ideas on educational reform. Parker found the committee to be mostly dissatisfied with the state of the town and receptive to his ideas.

Parker believed that curriculum should follow from the interest of the child, and this called for a complete transformation of the role of a teacher. On their end, some teachers were of the mind that traditional education took the skill out of their profession, and for these teachers Parker's methods must have been a welcome reprieve. Parker's method also called for a high degree of autonomy for the student. There was a shift in focus from quantity to quality; the number of subjects were reduced from seven to about three. Rather than relying on rote memorization, students were instead encouraged to have "incessant practice. in writing from their heads. Thus by constant practice they rapidly acquired the art of composition and could write almost as easily as they could speak." [17]

" The set program was first dropped, then the speller, the reader, the grammar, and the copybook. The alphabet, too, was treated with slight deference; it was not introduced to the children by name, but they were set at once to work making words and sentences. The teachers woke up, and had to depend upon lively wits for success. No longer could they comfortably hear recitations from convenient textbooks. Other books there were in plenty, and magazines and newspapers. Teachers and pupils had to learn first of all to think and observe. Then bye and bye they put these powers to work on the required subjects. From Charles Francis Adams' enthusiastic essay *The New Departure In The Common Schools of Quincy* came impressive testimony that Parker had succeeded and that at Quincy, teachers and pupils worked together joyously and harmoniously. Public schools in Quincy were renowned when parker left in 1883... "

—David Cohen, ' *Education in The United States: A Documented History, Volume 2* '

While such methods were not unheard of before Parker, what set him apart from other progressive reformers was his belief in the freedom of physical mobility and play. With repression of a child's natural inclinations no longer a concern, schools became a place where children really wanted to be at. As one observer put it, the pupils "immediately manifested an increased interest in their school-work; they were impelled by motives within themselves; they worked from the gratification felt in the attainments they were making. " As for the teacher, he "ceased to be a task-master, and became a co-worker with the children; he was at once transformed from a mechanic or machine to an artist, and his work, before drudgery, became a fine art"[39]

But was Parkers method – what came to be known instead as the Quincy method – effective? We know that after Parker's reforms enrollment in Quincy schools doubled while other schools in the

county still struggled with attendance. An agent of the Massachusetts Board of Education by the name of George Walton surveyed all schools within Norfolk County, examining students on reading, writing, and math, geography, and history. Though the methods were not disclosed and therefore open to question, Quincy students led in everything but math, and even this might be explained by the fact that Parker had only begun to implement his methods on mathematics at the time of the survey.

Despite the success of Parker's methods or the fact they resulted in a decreased per student spending throughout the 1870's, the board voted to cut teacher salaries, and they denied Parker any raise. In turn, Parker left for a more attractive offer in Boston, and he began to siphon off teachers from Quincy as a sort of revenge. The role of school superintendent in the town of Quincy was then filled by John Dudley Philbrick who two years earlier had been voted off the Boston school board and had been replaced by a Quincy reformer who undid much of his work. In turn, Philbrick undid much of Parker's work at Quincy. To him, a decrease in per-pupil spending was somehow correlated with a lower standard of education – despite the superior performance of Quincy students.

There is no convincing reason why such innovative reforms like the Quincy method died off – least not to do with the efficacy of education.

“ Mann and his associates created a situation in which it would be professional suicide for a teacher to criticize the reformist line, and public attacks, at any rate, stopped. From the late 1840's onwards the organized teachers identified themselves with the cause of reform ... As the charismatic phase of reform waned, its results were left partly in a more organized teaching force and in fledgling educational bureau ... Urbanization, population growth, and the consequently increasing size of city school systems combined with dwindling lay interest in education to nourish the growth of these fledgling bureaucracies into the rigid and powerful machines...

Educators characteristically justified their increasing command of community resources by pointing to their own importance, their critical role in the salvation of mankind. Because they were eager to convince the community of their own worth, educators often stressed their own accomplishments and ignored their own faults; they became almost intolerant of basic criticism, incapable of generating reform... ”

—Michael B. Katz, *The "New Departure" in Quincy, 1837 – 1881: The Nature of Nineteenth-century Educational Reform* ’

## The Dalton Plan and Dewey's Project-Based Methods

“ In a certain musical comedy, one scene portrayed a gentleman with several of his friends about to dine. All the friends were of different nationalities. The first course was served, but before they could even taste it the orchestra played the host's national anthem. Everyone stood, but when they were again seated they found the course had been removed. Another anthem was played with the coming of the second course, and in like fashion they were denied four courses. The host was presented with a bill for a meal which had been perfectly served, but which they had not been permitted to enjoy. I beg that this characteristic musical comedy procedure which plays too important a part in our schools, be removed from education ”

— Helen Parkhurst, as quoted in [40]

“ The thing needful is improvement of education, not simply by turning out teachers who can do better the things that are not necessary to do, but rather by changing the conception of what constitutes education. ”

—John Dewey, as quoted in [41]

Helen Parkhurst was only seventeen when, in 1904, she accepted her first teaching position in Waterville, WI – a small settlement seven miles away from where she had grown up. She was the only teacher in the school of 45 people aged 6 – 16 years old. In her days of schooling as a child Parkhurst professed to being “bored to tears at school and she felt that she was not taken seriously”[40]. Perhaps out of her own professed loathing of the dogmatic curriculum of schools, or perhaps out of her inexperience as a teacher who suddenly found herself charged with leading a class of dozens of people – some of which were no more than a year younger than she was –, she began to develop what would later come to be known as the Dalton plan<sup>3</sup> in which students were granted autonomy in both their utilization of classroom space as well as with respect to the order and time to completion of their tasks. There were no set due dates associated with a given task, and students were not compelled to work either in groups or at the same pace. Students had near complete autonomy in accomplishing their work.

Parkhurst moved on from the Waterville settlement after a year to attend teachers college in River Falls, WI. Four years later IN 1909 she accepted a teaching position at Edison school in Tacoma, WA where she introduced the subject of folk-dancing, to which the administration was intrigued. They requested she put on a show, the results of which were so successful that they granted her the opportunity to conduct the experiments which she had begun in Waterville.

Parkhurst paid special attention to freedom of physical movement and the environment, going so far as to unscrew benches and arrange a given room by 'subject corners', which in Tacoma became 'subject rooms' where students would go at their own bidding to work on a particular subject. As for teachers, they occupied 'laboratories'<sup>4</sup> where they would await students to inquire of them for guidance or feedback on their endeavors. As summarized by Piet van der Ploeg[40] in general Parkhurst found that,

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<sup>3</sup>Presumably named with respect to the town of Dalton, GA where the method would eventually be demonstrated.

<sup>4</sup>a term borrowed from the psychologist E.J. Swift's book *Mind in the Making; a Study in Mental Development* (1908)

“ First, when children are given , (a) freedom to move, (b) freedom to plan their own time, (c) freedom to confer with one another in a soft voice and (d) freedom to consult the teacher if they get stuck, then (i) the activity and commitment of the pupils towards and during the work increase, (ii) they are more motivated to work, (iii) they have more pleasure working and (iv) learning results improve ”

—Piet van der Ploeg, *Montessori and Parkhurst* ’

In contrast to John Dewey who was a highly influential educational reformer in the 1800's Parkhurst did not strive to change the curriculum itself, only the structure of education. Her method granted autonomy in terms of time and sequence, but did not compel a change in the content, of which she keenly perceived was inevitably going to be influenced by ever-fluctuating social and political conditions. Both reformers believed in the concept of learning via experience, but they differed in how they defined experience. Parkhurst saw the random interactions of an amalgamated group of self-determined individuals to be a mechanism for generating life experiences.

“ When pupils are allowed to interact and work together and with teachers, in an unhindered and unconstrained fashion, in variable groups, in various places, with varied means and materials, they come into contact with each other in different ways and at more opportune moments, the teachers, the subject matter, teaching materials and so forth. That brings about more frequent, more intensive, more varied, more motivated and more effective experiencing, sensing, investigating, perceiving, discussing and trying things out than in the old structure with its rigid order and rules, fixed relations and groups, one-sided and tedious communication, uniformity, social isolation and so forth. Hence, there is more experiencing and consequently more learning ”

— Helen Parkhurst, as quoted in [40]

Dewey on the other hand believed books and subject matter in themselves were experience as they constituted the cumulative experience of the human race. While he advocated for the transformation of the teacher from a dictator of the classroom to more of a guide, he still held the teacher to be the center of the classroom who leads activities, hence there would have likely been less autonomy under Dewey's scheme, the trade-off [compared to the traditional system] being more individualized curriculum that would come in more of a project-based and individualized form that was specifically tailored to the experiences of the student. Dewey himself recognized this to be difficult if not impossible to obtain at the time when technology limited the extent to which students could network with teachers across the state and nation so as to match their interests with their needs, but one which was nonetheless worth striving for at the time. From Dewey's perspective, schools were to be community centered; they were small cities in themselves, and curriculum he believed should conform to the individual.

Both reformers recognized the importance of democratic education; an education in which students learned to participate in a democracy and to develop socially (Dewey, for example, believed that students became more social as a result of social experience). Either method would have been a dramatic improvement from the traditional method of uniformly standardized and timed curriculum, compulsory attendance, and learning by rote memorization.

In contrast to traditional education, Parkhurst believed that a democratic education and social

development could be accomplished via "interaction of group life"[40] rather than unidirectional and obedient lecturing. While the granting of temporal and sequential autonomy constituted a dramatic shift, Parkhurst did not dismiss the fact that a critical function of schools was to provide a stabilizing force; perhaps mistakenly, she quoted Dewey on the idea of democratic education, "There is a passage in Dr. John Dewey's *Democracy and Education* which admirably defines this idea. 'The object of a democratic education,' he writes, 'is not merely to make an individual an intelligent participator in the life of his immediate group, but to bring the various groups into such constant interaction that no individual, no economic group, could presume to live independently of others.'"[40].

In the long run of things, neither Dewey nor Parkhurst would prevail through the progressive age which gave rise to a wave of reformers who sought to once again orient education to the needs of industry, only this time, in parallel with the developing notion of scientific management (or Taylorism), it was the idea of specialization which granted them much power. Guided by the theories of psychologist Edward Thorndike whose claimed that skills in one learning area did not readily translate to another. In the end 'administrative progressives' as David F. Labaree categorizes them, won out over the 'pedagogic progressives' like Dewey and Parkhurst. According to Labaree, "...one cannot understand the history of education in the United States during the twentieth century unless one realizes that Edward L. Thorndike won and John Dewey lost." [42] While there is no clear line of reasoning which justifies the idea that competent specialization can only come at the exclusion of autonomy or the opportunity to choose one's own curriculum, administrative progressives had 'boots on the ground' type lobbying while progressives got carried away with theory and rhetoric [42].

Parkhurst's method – the Dalton plan – became very popular in America during the 1920's, and it took root in a number of other countries such as England, Germany, and the Netherlands which utilizes the method to this day. For reasons that seem to be most obscure beyond the onset of the great depression and some targeted propaganda against them in the 1930's, the Dalton plan rapidly fell out of the public's psyche. Today the only remaining Dalton school within the U.S. is in New York. As is in line with the alarming trend that only private school students usually enjoy autonomy in their learning, the Dalton school in New York is the second most expensive private school in the country. To this day, the Dalton plan remains horrendously understudied.

## Chinese Systems

" Every June, the *gaokao* inspires a barrage of media photos, which indicate the fiercest of academic pressure cookers: Hangar-size warehouses with row upon row of black-haired heads bowed over exam papers. Students hooked up to IV drips for energy during test prep. Busloads of students on their way to exam sites, revving past thousands of pedestrians who raise arms in salute. Throngs of anxious parents camped outside the exam hall gates.. "

—Lenora Chu , ' *Little Soldiers* '

Since the time of Confucius education in China has been a means of determining eligibility for working in government. Mencius, a disciple of Confucius, held that only those who work with their minds were fit to rule. While it was theoretically possible that anyone who could master the ideology could rule, in practice only the affluent could afford the time to devote themselves to studies.

Education methods revolved largely around rote memorization, and this was good for preserving a sense of tradition. This system persisted until just after the twentieth century at which time, having been defeated in the Sino-Japanese war 1894–95, China could no longer hide that her ancient methods were outmoded. The threat of colonization by western imperialist only added to the incentive for China to modernize. In 1905 the national examination system which had been in operation as a weeding out mechanism for over a millennia was abolished. Nativists' began to stress unification via education, and students were sent to Japan and America to learn 'western ways' under the notion that they'd return and devise a means by which China could take everything that was essential and useful from western educational systems, and somehow implement these things in such a way that China's cultural heritage remained in tact.

'Return students' – those who had gone to America or Japan to learn western methods – came back with a distinctly modern, intellectual, and condescending attitude. They promoted uniform and standardized methods, education as a means to segregate those performing manual labor from intellectual work, and an elitist system that only the rich could afford – one which favored those in urban centers over peasants in the countryside. The growing division between urban and country citizens would in fact become a central issue throughout the twentieth century. The cultural situation is summarized by Suzanne Pepper's description of cultural conservative Liang Shuming's take on what was transpiring in China in the 1920's,

“ By the early 1920s he had begun to explore the causes of China's demoralization and concluded that it was due to Western influence. Previous reform efforts had been led by intellectuals in imitation of the West, to gain wealth and power. They failed to achieve their objective and were extracting China's cultural roots in the process. Wealth and education were concentrating in the cities, and the countryside was being destroyed. In particular, Liang blamed the new Western-style education, which was "educating people for another society" but inadequate to meet China's own needs. In Liang's view, the new system actually contained the worst of both worlds. The defects of traditional education were still present, whereas its good points had been jettisoned and those of the West lost somewhere in between. The authority of the old educated class, argued Liang, had derived from its dual role as political leader and transmitter of moral standards. The new education ignored the old values, and intellectuals had become self-serving, luxury loving, and profit seeking as a result. They retained their privileged elite status without any sense of moral responsibility. In addition, he anticipated that Chinese society, like societies in the West, would soon divide into permanent hereditary classes since the new education was so costly that only the rich could afford it. Unlike Western intellectuals, on the other hand, their Chinese counterparts still generally aspired to become officials and retained the traditional Chinese scholar's disdain for manual labor. He concluded that the new education was serving only to alienate further the elite from the masses and the cities from the countryside. ”

— Suzanne Pepper , *'China's Education Reform in the 1980's '*

The ensuing cultural backlash of the 1920's against intellectuals gave a platform for the rise of political leader Mao Zedong – a voracious reader who developed his own ideologies, by now referred to as 'Maoism'. In addition to espousing rhetoric against elitist intellectuals, Mao experimented with

a self-study university – an experiment which would be cut short by a local warlord<sup>5</sup>.

As the government began to allocate more funds to the cause of education there ensued somewhat of a tug-a-war between political groups formed by peasants themselves and local education boards who were mostly comprised of return students or proponents of their ideologies. Peasant groups wanted traditional schools which conformed to their work schedule and other life-events which required classes that did not have definite start and end dates and a curriculum which was both practically useful to their every day lives and culturally aligned with their heritage. The local school boards on the other hand, wanted a modern standardized curriculum. The government decided to split the funds to both groups. Peasants then had their traditional schools in which curriculum was reverted to the ancient methods of relying mostly on rote memorization, and individuals could pause their studies as life sometimes requires (e.g. a birth or death in the family) then resume exactly where they had left off. Meanwhile the school boards ran by return student graduates created schools in which modern curriculum and organizational methods were adopted and students were expected to progress together towards a goal – a thing which of course required defining start and end dates.

A number of experiments in education were carried out in the 1920's, and some of them were promising, but ultimately they failed due to lack of political support. Towards the end of the 1920's the Guomindang party brought education under the control of the national government. Returned students then were able to monopolize bureaucratic positions in both government and education. With the 'regularization drive' of 1942 schools who had less than thirty students enrolled and those schools who resisted the drive or were simply not capable of meeting stipulated standards were forced to close and the rest were required to adopt a set of unified standards[18]. A theme which would prove recurrent to this day then began to take root – an emphasis of quality over quantity. County's were encouraged to pool their resources into a few 'keypoint' schools; prestigious schools that were to serve as models for the remaining schools. The majority of state funds went to keypoint schools which were usually in urban centers, and this had the effect of reinforcing a divide between peasant laboring classes and urban elites, hence the underlying dispute of 'quality vs. quantity'; urban elitist felt the quality and selectivity of their system ought to preclude equal opportunity for rural residents.

In 1949 the Guomindang government was replaced with the Chinese Communist Party (CCP) with Mao Zedong its chairman. The Peoples Republic of China (PRC) was established – what is today the largest country in the world. Among the first orders of business for Mao was to abolish the keypoint system and strip many wealthy nobles of their land and redistribute it to the poor. Wary of the repercussions of implementing too much reform all at once, Mao adopted a policy of gradual implementation of Soviet inspired agricultural reforms; cooperatives were formed and people were encouraged to join farming-associations. As for government officials, they were encouraged to 'go down to the people' by spending time working alongside peasants in order to bridge the gap between high-minded bureaucrats and the realities of those they governed.

Cognizant of the fact he was developing a reputation as an extremist against progressive academics Mao initially attempted to pursue an amicable middle ground;

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<sup>5</sup>China in the 1920's was essentially ran by warlords since the revolution of 1911

“ In an attempt to be conscious of extremist ideology, Mao “strongly encouraged intellectuals to speak their mind, to point out the errors of party officials, and to “let a hundred flowers bloom and a hundred schools of thought contend.” He claimed that few contradictions in socialism could not be resolved with honest and blunt discourse. Soon intellectuals took him up on his offer and broke silence, “...as the intellectuals unleashed an outpouring of grievances against arrogant and ignorant functionaries. At the same time they raised basic questions about whether China should continue to draw so close to the Soviets, and whether the CCP should maintain a monopoly on political power. In essence, China’s intellectuals in May 1957 tried to reclaim a position as loyal guardians of the proper moral framework for the political system. Once started, the momentum of criticism gathered stream, and local party officials formed themselves under increasingly severe attack. Workers, too, began to press economic grievances through strike actions and other organized activities. ”

—Kenneth Lieberthal , *‘Governing China: From Revolution Through Reform ’*

The middle ground option having failed, Mao labeled intellectuals as ‘rightists’ and banished as many as 400,000 into penal camps or sent them to the countryside to engage in forced labor. The anti-intellectual rhetoric resumed. In Mao’s mind, “bourgeois ideas and the people who espoused them had to be changed. Otherwise, they might threaten the continuing existence of the revolution itself”[18], the two-class system would be restored, and class would become hereditary. He was essentially fighting an attitude which had been ingrained in a populace for thousands of years; Confucian ideology had led to a culture in which familial lines were highly honored and specific, but national identity was not. Consequently, people were not readily mobilized to the idea of working together for a national cause or a cultural shift. According to Kenneth Lieberthal, “This specificity of social obligation helps explain a paradox often observed by Westerners in China. A poor family living at bare subsistence level will take in any distant relative who shows up at their door needing help. The relative may live in the family’s cramped quarters, share their food, and even find a modest job with their aid. This same family, though, would pass a starving beggar on their street every day and refuse to give him any money.”

Mao embraced the idea of consciously creating struggle among people as a means to overcome passivity and change their ways. Passivity, was of course, still is a widely noted trait among intellectuals.

Private property was finally abolished in 1958 and the traditional standard marketing associations (SMA’s) in China were amalgamated to form people’s communes. It was Mao’s aim to industrialize rural society and level the scales between urban and rural workers. Manufacturing industries such as steel furnaces were implemented in the communes, and these endeavors would entail long hours for peasants who had been taken away from farm work thereby creating a shortage of harvesting man-power. In some ways however, they were successful at implementing a communal society; some went as far as to entertain the notion of giving up the idea of money altogether[19].

A number of organizational problems ensued from the policies implemented in the ‘Great leap forward’. Distrustful of intellectuals, policies relied more on mobilization of the masses than they did on their advice. So too was it believed that the mobilization of the masses could substitute for importing foreign farm equipment. For the case of steel furnaces this all translated to peasants being encouraged to donate their personal metallic items to the steel furnace which resulted in steel of such



low quality it could not be used for a number of vital purposes such as constructing farm machinery. There were also a number of mistakes made in farming which had been based on faulty assumption such as seeds of the same kind being planted together not being able to compete with one another, deep-plowing leads to larger root systems, or that neglecting poorer land in favor of concentrating both manure and efforts on the most fertile land leads to a greater per-acre productivity in grain output. Mao had also adopted a policy of increasing grain exports – a thing which was somewhat in contradiction to his requisitioning of 30% of farmers produce under the pretense that it was to be held in reserve for the case of a famine.

It turns out that famine was not long to follow. The fact that high export rates were maintained up to a time when the famine was already under way is perhaps explained by the fact that Mao's quasi-fascist regime had, as in the case of Adolf Hitler, established a sort of brownie point political culture in which government officials were eager to prove their worth to those officials above them. Grain production figures were severely skewed – in some cases multiplied by a factor of ten – in an effort to report an unrealistically positive picture of how the policy implementations were playing out. The results were nothing short of the one of the most deadly catastrophies in recorded history; lower estimates of the death toll from the famine which onset around 1959 say about thirty million people died, a few million of which were either suicides or a result of physical abuse by the CCP in so called 'public criticism sessions' in which members of the public and party members alike were encouraged to rebuke counter-revolutionaries.

“ As mass starvation set in, ever greater violence had to be inflicted in order to coerce malnourished people to labor in the fields. Victims were buried alive, thrown bound into ponds, stripped naked and forced to labor in the middle of winter, doused in boiling water, forced to ingest excrement and urine, and subjected to mutilation (hair ripped out, noses and ears lopped off). In Guangdong, some cadres injected salt water into their victims with needles normally reserved for cattle ”

—From Wikipedia, , *'The Cultural Revolution'*

Child cannibalism is also known to have occurred in some regions of China during this time.

Mao retreated to a peripheral role and passively accepted much of the rebuke which followed. From the sidelines he watched as his critics within the government responded by implementing the *danwei* system in which many urban residents were relocated to the countryside, their mobility was restricted, and they were tied to their occupation. A socially and economically stratified system of secluded and exploited rural society vs. a relatively privileged urban society which received the bulk of government subsidies seemed to be reinventing itself before Mao's eyes – its promoters operating on the presumption that the experiences of the cultural revolution were some kind of omen that their system was the 'right' one, and that it should be reinforced stronger than ever. Their keypoint school system was systematized under Zhou Enlai who by that point had been planning for a few years to implement a 'two track' system of keypoint schools for urban elites and vocational schools for the rural poor, but he had not found the timing opportune until 1962 when the devastation of the cultural revolution's backfire created conditions which were ripe for educational reform. The idea of 'quality over quantity' was reasserted and keypoint schools were granted the bulk of state funds. The level of inequity between schools at this time might be inferred from Jean Robinson's analysis of the distribution of funds between keypoint and rural schools in the 1980's,

“ In China, the cost per urban child for education from kindergarten through lower secondary school averaged 6,900 yuan with an additional 6,000~7,000 yuan for a regular higher education program. The expenditure for the rural child presents a sharp contrast. The entire education, usually encompassing five years of primary schooling, but sometimes only three years, costs about 1,600 yuan. ”

—Jean Robinson, as quoted in [20]

Mao became increasingly concerned with the 'revisionist' idea that the revolution could be undone and China could be reverted back to a two class system. He stepped out from the shadows and reasserted his authority with a revival of the cultural revolution. The keypoint system was abolished, not with the notion of restoring equality so much as abolishing labels of urban vs. rural and regular vs. irregular schooling (e.g. vocational schools – schools that train people specifically for a layman craft, would be considered irregular). From 1966 – 67 youths were radicalized by the notion that teachers were morally irresponsible people and students were encouraged to rebuke their teachers in criticism sessions; teachers were verbally and sometimes physically abused, in some cases they were locked in closets, and in others they were murdered outright. For better or worse, manual laborers were granted teaching positions.

While this abuse against teachers abated after 1967, the cultural revolution would continue until Mao's death in 1976.

The intellectual class wasted no time in re-asserting their agenda after Mao's passing. The keypoint system was revived and manual laborers expelled from education. Too much damage had been done to the 'quality vs. quantity' argument to completely abolish rural schools. Instead, as previously quoted, funds were largely redirected to keypoint schools. The national entrance examination (or *Gaokao*) was revived along with the *danwei* system which primarily restricted the mobility of rural peasants and ensured they received minimal support in the form of social security, medical care, guaranteed monthly salaries, and pensions[20, 18].

With the national entrance exam a prerequisite to college admission, improving the admission rate became the overarching goal of schools. For rural schools who had the disadvantaged to deal with, the primary way of improving the admission rate was to examine kids and classify them as 'hopeful' or 'hopeless' (or good vs. bad) and place them in classes accordingly. Teacher and school performance was linked to student performance, and in order to improve the schools admission rate, rather than improving education itself, the hopeless students were forced to repeat classes – a thing for which it was known would cause many poor students who were already at a disadvantage in that their work and family obligations often took them away from study to drop out. Accordingly, teachers in poor schools took on a dejected attitude that they had become babysitters while others took to blatantly reporting misinformation to improve the numbers. Students who did not make it into college were not eligible for employment by the state and factories were prohibited from employing the illiterate. Those who gained admission were often jokingly referred to as 'dragons' and those who didn't as 'worms'[20].

Meanwhile, keypoint schools were not immune to corruption. As Jing Lin recounts,

“ ...many government bureaucrats have back doors, that is, they can use their power to press schools to admit their children, and they can promise the school favorable considerations for funding and quotas of promotion in future. The author was once admitted to a county keypoint school by passing several tough exams. The class was originally planned for just twenty students, but when school began there were more than forty-five students. The additional twenty-five students were all back- door students. ”

—Jing Lin, *‘Education in Post-Mao China’*

One does get the drift that the thirty million (a lower estimate) people who perished as a result of the cultural revolution were hardly more than an opportunity for progressive reformers to reassert their will. The keypoint system is still in effect in China today, as is the national entrance exam ( *Gaokao*) which is notoriously stressful for students; every year suicides are linked to the *Gaokao* exam.

## Part II:

### Guilds: Medieval & Modern

A guild is a group of individuals who secure specific rights from the government which allow them to explicitly monopolize a trade. An example would be a brick-layer guild in the fifteenth century; while it might be said that many people could learn the skill of laying bricks given the opportunity, with the government stipulating that only members of the brick-layers guild may lay bricks in exchange for wages, few will ever develop the skill. In Europe guild systems were common by the twelfth century.

European Monarchs and developing state governments in the middle ages often empowered guilds with monopolies because guilds at the time proved a useful means of taxing craftsman, regulating markets, and to support developing centralized governments in their attempts to gain independence from nobles. Up to about the sixteenth century much of Europe was still under the feudal system which gave rise to what is often referred to as the 'three orders'; peasant laborers (often serfs, but there were also free peasants), nobles and their knights who were obliged to protect the peasants in exchange for their serfdom or wage labors, and the church. The idea of a central government did not come into play until commerce and trade started to develop between towns beginning in the fourteenth century. Monarchy was of course the first form of centralized government to coalesce, hence guilds were at times seen as a useful tool for rulers to gain leverage over the disintegrating noble class as the feudal system began to deteriorate along with famines and peasant uprisings which undermined the leverage that nobles held over peasant classes.

Guilds began proliferating en masse with the abolition of serfdom, hit a high point in the seventeenth and eighteenth centuries, then most guilds abruptly died off in the first half of the nineteenth as governments began to accept that they stood in the way of the development of commerce between states.

The role, origins, and functions of guilds remains a disputed concept among historians today. In part this is explained by the fact that much of the recorded evidence that remains of them is based on the statutes of their organizations which tell what their rules were, but they don't always tell historians much about what they actually did[43]. This would explain for example how researchers might come to different conclusions about why masters were often restricted from working at night; one author came to the conclusion that this was one of the many ways in which guilds endeavored to restrict output so as to avoid competing with one another, while another researcher concluded that it was to maintain quality (because candle-light didn't make for good craftsmanship).

However, even proponents of guild systems acknowledge that when push came to shove guilds tended to do what was best for guilds. Guilds were not just tools for creating functional markets, but more specifically "The guild organization became an instrument for creating functioning markets for the craftsmen"[43], i.e. guilds created markets that served the interest of its members. And guilds were efficient at making it abundantly clear whether there was enough work to go around, and in turn causing those who drew the short stick to migrate elsewhere.

There are however, broader perspectives, both for and against guilds, which will not be pursued here. Adam Smith for example believed guilds were repressive cartels that depressed wages. Jean-

Baptiste Colbert also thought guilds set low standards, tolerated piracy, and had the overall effect of inhibiting free-trade. On the other hand Niccoló Machiavelli argued that guilds were what made trade possible in the first place.

The first section to come will compare and contrast the function and purpose of the university systems today with guild systems of the middle ages, relying on both research by Sheilagh Ogilvie and some of my own observations as a former graduate student to make the comparisons with today's higher educational system.

The second section to come will describe the historical development of the idea of a professional, using the medical field as an example of how professional licensing practices developed. Briefly, the history of the National Academies of Science is also covered followed by a short examination of guild powers of engineers. These things will then somewhat naturally feed into a philosophical blurb of my own about 'the observer based reality'.

## **Comparing Medieval Guilds to Modern Universities**

Universities cannot rightfully be categorized as either socialist or capitalist organizations. They might be funded but they are not owned by governments, and they go to great lengths to avoid being assimilated into government so as to maintain institutional autonomy. In contrast to capitalist organizations who strive to maximize profits and do not typically put a ceiling on their growth, if universities maximize anything to do with profits it is the *average* earnings of institutions or of a profession (e.g. professors) rather than the individual earnings. In order to 'serve the public good' as states require of them, overtly capitalistic behaviors are avoided. Capitalist organizations typically aim to diversify in order to make themselves stand out, and they maximize the efficiency with which they can produce a product. In contrast, universities are characterized by a want to secure stability and to avoid competing with one another in any fashion which can be compared to free-market competition in which there is more than incentive – there is need to maximize the efficiency with which goods are produced, and innovative means are embraced in order to achieve this. Though universities 'compete' for students, they only do so in their own artificially contrived fashion.

As we have seen the idea of a university was a byproduct of guild schools in the middle ages, but does this imply they still function as a guild system today? In the words of Elliot Krause whose research has focused on the last vestiges of guild systems which remain today,

“ Economic and political factors allowed the scholars' guild and the guild model of the university to survive while all the others fell. The early university was not an economic rival to the growth of capitalism, as were the craft guilds, and universities from the beginning came under local government sponsorship....

...The university and scholars' guilds held onto their power over membership, training, and workplace because early capitalism was not interested in it (there was no product that the capitalist wished to produce)... , the cultural prestige of knowledge itself helped keep the scholars' guild and the university alive while all other guilds failed. ”

— Elliot Krause, ' *The Death of Guilds* '

Like universities today, guilds in medieval Europe were not driven to maximize profit for the

individual, rather their characteristic goal was to maximize the average income of their members, and also to secure stability of employment. And they went to great lengths to avoid competing with one another universities[43].

When and where central governments were lacking, guilds had strong power and high honor was given to occupations involving brain-work which were called 'liberal' while those involving manual labor were called 'servile'. While some researchers might claim guilds protected peasants from the tyrannies of serfdom, they only did so when it served their own purpose or when they were obliged to. The guilds in Florence, Italy in the thirteenth century for example ruled unchecked and rather than liberating peasants from serfdom they simply reinforced it in a selective fashion; "On a lower tier again we find the washers, beaters, and carders of wool, the fullers and the soapboilers, who formed the lowest grade of the labouring classes...[being supervised by officials appointed by the guild] subjects of the guilds were absolutely forbidden, to combine, to act in concert, to assemble together, or even to emigrate. They were the victims of an almost perfect system of slavery."[44]

A number of authors have defended the role of guilds such as claiming that they level the playing field between rich and poor; they reduce information asymmetries between producers and consumers; they were a force of democracy because they at times stood up to central governments; they were private order institutions that allowed markets to function; etc.. But this view seems to be coming under fire. In her recently published six hundred page long book *The European Guilds: an Economic Analysis* (2019) Sheilagh Ogilvie, basing each of her arguments on thousands of historical observations, lays to rest these assumptions and a number of others which have been used by academics in an attempt to depict guilds as something which in no way contradicts the notion of 'serving public good' (this was in fact, a common phrase among guilds even in the middle ages, and it is explicitly stipulated into university bylaws today).

Ogilvie's analysis covers European guilds from the eleventh to the middle of the nineteenth century – the time at which the majority of guilds died off. Somewhat peculiarly, she makes almost no mention of the scholars guilds. However, when one compares the defensive and even confrontational tone Ogilvie writes with and the emphatic ways in which she dispels fallacious notions about guilds which have proliferated in the works of academics who have tried to look favorably on guilds by being selective in their choice of evidence, uncritical in their analysis, and lofty in their tone, one does get the feeling that there is some unspoken battle being waged in the literature – one in which the true target [the university system?] has gone unnamed. In either case, Ogilvie's arguments prove directly relevant to university systems today.

Science – social or physical – is not just about finding evidence, but it is also about withstanding scrutiny. It is curious to note how the latter part so often gets ignored in many works whose focus is the study of modern education, or any historic thing it might be compared to. Instead authors at times seem to dig through a pile of evidence to find whatever supports their own preconceived notions. Ogilvie's work is of a different nature; it is entirely critical rather than constructive in its methods; she is not out to develop a theory or paint a picture; she is just out to shoot down much of the propaganda which to date has gone unchecked, and researchers have given her much to shoot down.

The subsections to follow will consider some of her points then analyze them in the context of modern higher educational systems in an effort to compare medieval guilds to modern universities.

## **1. Closure and multiplex links**

Guilds rely on being able to delineate between members and non-members as well as networking with one another face-to-face. The ability to identify who is and who is not a member obviously is a requisite for any organization who wishes to exclude others from some activity. The reasons behind requiring face-to-face meetings had nothing to do with work, rather these were required so that members could identify with one another, reinforce social norms, punish members who did not abide by guild ethics, and so that the guild would have the capacity to organize in a collective fashion. For these reasons and more, attendance for guild members was often made compulsory[21].

As a physics graduate student I often found myself wondering what the point of seminars were. For every student they were required for the first two years, yet it could be said that even those who held a PhD could hardly follow the material being presented, unless perhaps they happened to specialize in the particular field of the researcher invited to talk, but even then it can be said that digesting all of the complex information presented in these seminars within a mere hour is rarely a realistic goal. It is just the nature of physics that it takes a significant amount of time and energy to grasp things, and never have I heard someone proclaim that such talks instilled in them any idea of what research they'd like to pursue. On the contrary, these talks just seemed to turn people off like a switch. Once there was a seminar with an interesting title 'The Physics of Music' which drew a crowd from non-physics majors. Half-way through a good number of them left after realizing the speaker was dry and went into the most reductionist details of the acoustic waves generated in a violin. If the purpose of seminars were to inspire or to educate people then it can be said they've done the exact opposite. What seminars do (beyond adding \$300 \$1, 000 per student into the schools coffers) is they give the scholars guild a chance to reassert social norms and to identify with one another.

## **2. Making citizenship a prerequisite to membership:**

Guilds feared the effects of an influx of foreign labor as well as the import of foreign goods. Accordingly, guilds would either exclude non-citizens and foreign goods alike from their local markets, or they would charge higher fees to non-citizens while barring certifications gained from different towns as being considered legitimate.

One comparison for this to the fact that universities charge out of state tuition. The reason for this is legitimate; state residents who pay taxes fund schools. But this alone does not explain why universities cost so much and therefore are so heavily reliant on tax and tuition dollars in the first place when it can be said that far more economical, mobile, and even effective means of education have gone largely unexplored by state and private educational institutions.

A more appropriate comparison would then be the idea of competition, or the avoidance thereof, between universities. In addition to the fact that states typically avoid funding universities which exist too close to one another, universities only compete according to their own artificially contrived definition (an example on this will be considered later). Students are not granted the consumer

leverage they enjoy in most other sectors of the economy for which it can be said companies have strong incentive to maximize the efficiency with which they produce goods and to embrace innovative means of doing so.

### 3. Innovations:

Medieval guilds would often seek to stifle innovation, but only that which threatened their trade. They did so in many instances by using pragmatism and the collective 'wisdom of the crowd' of their guild as a justification for why funds should be redirected,

“ Guild opposition to innovation, the argument concludes, actually benefited the economy by saving it from allocating resources to projects that were bound to fail....

”...Did a guild know better than an entrepreneur?....Portraying guilds as authoritative repositories of knowledge taps into the trope of the “wisdom of the crowds”, the idea that the collective opinion of a group may be superior to that of a single expert. Recent research, however, shows that the pooling of knowledge through ‘crowd wisdom’ is likely to give rise to good outcomes only if certain quite restrictive conditions are met; the crowd must not define the question, the quality of the answer must be easy to evaluate, the crowd must be highly diverse, and the collective information system must depend heavily on individual evaluations by crowd members. In situation involving innovation and creativity, however, those conditions are seldom fulfilled, and the wisdom of crowds instead gives rise to group think, band-wagon effects, and information cascades ”

—Sheilagh Ogilvie, *European Guilds: An Economic Analysis*, ‘ *European Guilds: An Economic Analysis*’

In the last decades we’ve seen grocer’s turned to automated self-help machines, book markets redefined by Amazon, and soon the electronic menu trending in Japan will likely affect the role of waiters[22]. Yet we are told that ‘nothing can replace a teacher’ or that zoom meetings for higher education are somehow inferior to in-person. But in the decades of schooling I’ve had I could never completely follow an in-person lecture (the human attention span is only about 15 minutes I believe, in either case I was always more of a hands-on learner), but the same is not true for zoom lectures for which volume can be adjusted, videos can be replayed, and the teacher must present their results so that all – even those in back – can see equally.

Its interesting to note that arguments against going electronic or [god forbid] the automation of education often have the eerie ring of populism, e.g. ‘most people [insert argument]...’. But one persons preference, while worth respecting when possible, does not negate the plain fact that it may not work for many others. Since the 1960’s congress has embraced the view that *higher* education is primarily a private investment and any national or cultural purpose it may serve beyond this is secondary[23]. Yet education today has come to be treated as a tug-a-war in which we all are either pulled into doing things this way or that according to some projected notion of what the majority preference is. And so it seems to have become common that almost by default people often respond to the proposition of educational innovation by stating their preference – as though higher education is some kind of elementary school democratic majority class vote in lieu of the institutions willingness to provide consumer options. Rarely does anyone seem to justify why such a personal preference



should be forced onto others.

Secondly, with regard to idea of automation of higher education, it is worth pointing out that education is already automated; there is nothing a teacher presents which has not in most cases been presented elsewhere with the same content and in the same order. Some teachers in fact resent their lack of leeway to construct their own curriculum. As previously discussed there was a time in the evolution of education in America where it well could have gone the other way to a more 'natural learning' or project based method, but it didn't happen.

#### **4. Controlling access via dropouts, temporal and sequential control, and lump-of-labor fallacy:**

As is the case today, guilds stood a better chance of maintaining their privileges if they could claim to grant open access to anyone, but they also had significant leeway to manipulate the entry criteria so that people would fail or dropout. So much leeway did they have in some instances that guild mastership became de facto hereditary, and this caused significant tension between them and what had become a permanent class of journeymen with no prospect for upward mobility[44]. Guilds emphasize equality of admissions so as to smooth over their image with the public so that licensing laws which make guild membership mandatory for practice would not be challenged, but as one Swiss survey noted about such laws in 1829 , "a gross contradiction to freedom of occupations: for freedom of admission can be hindered in many ways and does not provide sufficient security against arbitrariness"[21]

In general, guilds of the middle ages were more concerned with people wanting in than those wanting out.

Guilds exercised what I will refer to as temporal and sequential control; they would implement both minimum and maximum lengths of time for apprenticeship, the place in which it could occur, the times of day at which apprenticeship could be performed, and in what fashion apprentices were to go about their tasks[43]. Apprentices would at times complain that a master was intentionally withholding opportunity for them to gain certain skills or extending their training much longer than necessary. Guilds justified much of this manipulation with the idea that there was only so much work to go around. Today this argument is often referred to as the the 'lump-of-labor fallacy' – it is false because when you add more people to an economy you simply create more economy. This has been found to be true with respect to immigration and I'd say it also seems to be true with tech jobs as well; if more people come to the field we simply create more technology, new software, and come up with new ways to connect them to other things or sell them to other people. In general, few if any economists would attempt to argue that economies can be explained strictly by producing things which are only of necessity, so there is ample room for the notion that people *create* economies rather than simply participate in them (this is a somewhat obvious thing in fact).

Nevertheless, guilds felt their trades needed to be confined to a select few and apprentices needed to be held outside of the job market longer than is necessary to complete the training.

To compare this facet of medieval guilds to modern universities, temporal control is exercised by universities today in that they extend time to graduation beyond what is necessary by adding

a number of generalized and frivolous courses to a degree and they set restrictive limits on credit transfer – a thing which in the case of graduate studies often has the effect of causing individuals to essentially re-do an entire masters degree. This is because prolonging the time to specialization, adding more years of tuition, and in general frustrating people until they drop out is a primary function of the degree system that we have today.

The time to specialization is maximized in part by fragmenting education; constantly interrupting ones progression on a given topic by setting the individual onto another task after only a superficial level of knowledge has been gained. Precisely at the point at which real concentrated learning is about to begin is the point at which classes usually turn to the next topic. Before long the class is over and one finds themselves (especially in physics) either starting back at the same point or at the least doing a healthy amount of repeat 'so that we're all on the same page'. By the time one makes it to the PhD level of course one is well aware of the significant pressure to publish when operating at that level so they're liable to adopt more pragmatic projects and strategies than in earlier days. Hence, one goes from being frustrated as they are withheld from pursuing most every instinctive lead to its natural completion (or more realistically, until it evolves naturally into another lead) to just forgetting about it in favor of career goals.

Maximization of the time to specialization is also achieved by the linearization of curriculum, i.e. the notion that "education should proceed from the simple to the complex, and the concrete to the abstract." This allows for a subject to be segmented into introductory, intermediary, and advanced forms of knowledge. Presumably this is to ensure competence, but any science is inevitably going to require one to constantly return to the basics in order to understand with competence an advanced topic, hence it is a matter of organization rather than competency which is really being discussed. Personally, I found that the most effective learning is to be had by taking on advanced topics which currently eludes oneself and embracing whatever abstract methods are necessary to get there, i.e. to start with the complex and then go to the simple. Such a strategy is also effective at improving efficiency because you only study the things you really need in order to get to your goal. Conveniently, the linearization of education has proven a most useful tool for extending the amount of time students spend trapped in the introductory phases.

As for the imposition of definite start and end dates to courses, these measures prohibit people from working at their own pace.

The over generalization of certifications – the limiting of gradations to that of an associates, bachelors, or masters degree, none of which even allow for specialization to occur [at least not in physical sciences] –, together with the placing of restrictions on the transferability of credits between institutions allows the time to specialization to be appreciably lengthened, the cost involved to be inflated, and the sacrifice involved to go beyond reason.

Then there is the PhD – the point at which, after having consigned his or her body and soul to the institution, one finally is permitted to specialize in a technical field. Here, at least in the U.S., we find a compulsion to join a group, which is not only ironic being as the purported claim of a PhD is to teach people to think independently, but it empowers today's educational guilds with an added layer of selectivity– one which is not based on merit so much as compatibility of interests and personalities and interests. But before one enters the PhD level in a technical discipline, there is the comprehensive examination to get by. After so many years of studying the same things from

the same starting point every year, and in the most fragmented fashion which the institution could seemingly manage, one is expected to spend the better part of a summer preparing, often without any specific funding to support the endeavor, to do it all over again.

There are obviously a significant number of barriers to reaching the point at which today's educational system allows one to reach the point of specialization in technical disciplines which have the added advantage [from a guilds perspective] of complexity. This allows for it to be claimed that attaining specialized knowledge just takes a lot of time, but in fact much of this time is not even spent on really specialized fields.

At the more introductory/ undergraduate levels one can readily note how odd it is that people are taught math, but at no point are people taught *how to study* for math. In technical fields the honest sharing of methodology is typically avoided in classrooms, and this has a discouraging effect and triggers an appreciable dropout rate in the first two years of study for many contemplating a technical discipline but who have not yet mastered the methodology needed to succeed in such disciplines, and so they make the natural inference; they are not smart enough for such disciplines. In fact, I find it true that a near obsessive level of compulsiveness is more of a requirement than is intelligence for technical disciplines<sup>6</sup>

Taken together, all of this grants proponents of the modern educational guild system sufficient leeway to selectively control the time to graduation, and it does much to undermine the self-determination in ones decision process along the way to graduation.

## **5. Life-long occupation:**

Guilds intentionally narrowed the focus of training so as to limit the competition. When shifts in the market occurred and a master found himself without occupation he was not allowed to simply switch to another occupation[43]. As it turns out, when guild restrictions were disposed of abruptly rather than gradually, a huge influx of workers to specialized guild trades was observed[21].

## **6. Correct market failures and information asymmetries:**

It has been argued that guilds played a critical role in allowing markets to function – that markets would essentially collapse without the 'supportive' role of guilds. Bo Gustafsson for instance, has argued they play a critical role in price-setting according to quality thereby transforming trade from something like a gamble into an informed purchase,

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<sup>6</sup>It was my own experience that no amount of work will yield satisfactory results without methodology, but this is a thing I had to piece together myself as no one discusses this in colleges (least not in classrooms). About a year and a half in I finally got it down and began doing well after that.

“ If the buyer-consumer is confronted with a number of products sold at identical supply prices about which he or she knows that they vary in quality, he or she is uncertain about what products ought to be purchased. This has as a consequence that some buyers refrain from buying, as a purchase may lead to a – in some cases considerable – loss in exchange. Under any circumstance, the consequence of this would be a fall in prices on the market and in the extreme case, when all buyers are strongly averse to taking risks, that the market may cease to exist. Hence, the incomes of the producers decrease or disappear ”

Guilds would go so far as to burn or destroy products for their 'non-rightness', and they did so in the name of protecting the consumer. Gustafsson then acknowledges the weakness of this argument,

“ The hypothesis says: the medieval crafts had problems of marketing on account of lack of information on the part of the consumers about the specific quality of the products and guild organizations were founded to safeguard a satisfactory quality. From this follows a range of possible implications, e.g, that crafts which were not organized in guilds could not assert themselves; that crafts which neglected quality control had greater problems of marketing than those which did not neglect it; that the sales of a craft became greater the more thorough the quality control was (given that the control costs were not too high) etc. Unfortunately, there are no investigations nor probably any evidence which could verify or contradict such implications. ”

—Bo Gustafsson , *The rise and economic behaviour of medieval craft guilds an economic-theoretical interpretation*

Ogilvie presents more flaws with this argument; many guilds didn't even have quality standards and in some instances they put restrictions on products which hadn't even been inspected for certification. Moreover, guilds played ignorant to the fact that gradations of certifications (i.e. certifying different levels of quality) is entirely possible. In general it is clear that the intent of guilds was to prohibit people's choice to buy lower quality. There are a number of examples in the middle ages and today which allude to the fact that people buy cheaper when they are allowed to do so, even though the product may be of a lower quality, and merchants would often seek to bypass guild certification when possible. Far from collapsing, markets in the middle thrived under a system of gradations when they were allowed[21].

By limiting consumer options via the restrictions of gradations in quality and content, guilds were able to reduce commerce to an artificially contrived market which served their ends, i.e. guilds shaped more than just job markets; they shaped consumer markets as well. Educational systems today of course parallel this behavior by the restriction of degrees to very general ones such as [gradations] bachelors, masters, and PhD.

A professor once jokingly asked the class I was in if we had our 'Fourier transform license' and a number of other 'licenses' which were of a significantly more specific degree than a college degree. Fourier transform is in fact a small part of just one course, but were specialization allowed one could go pretty deeply into it. In fact we'd likely find the concept of Fourier transform relates to a number of other topics, many of which someone learning Fourier theory probably didn't appreciate at first,

and any number of which might spark interest in a whole new discipline and plant the seeds to a thought which radically alters their academic and professional trajectory. Progressing in this fashion is self-determined and is more natural; one thing leads to another thing – a things which the learner probably had no idea in the beginning that is where they'd end up. This is precisely the kind of freedom of thought professors and research scientists ask for when requesting grants to support their endeavors, but which their own students lack.

It is not immediately apparent to non-scientists why governments might give millions – sometimes billions – of dollars to a group of physicists who tell them they have no idea what they are going to find when they build the Large Hadron Collider or when they send a hundred mile long interferometer to space. The principle of science is that to learn new things you must try new things.

How can a system of degrees which endeavors to mold people to its three basic gradations claim to allow for self-determined decision making, to facilitate innovation, or to provide people with the flexibility, knowledge, and adaptable skills which the information economy requires and which they paid to receive?

## **7. Dishonorable occupations:**

Guilds blocked entry to 'unfree' people – those who were 'tainted' by serfdom or even those who were known to have serf or slave ancestors. Women were barred as a result of their personal sex lives. Convicts and even just morally offensive acts could be grounds for being excluded from a guild. Of course the definition of 'moral' varied widely over time and place. By the sixteenth century guilds began to offer certificates of good conduct.

While it can at least be said that today the federal aid system has come so far as to allow people with criminal pasts to receive federal aid (and even this I believe is only a recent development), the snobbery of social labeling persists in other ways.

In my own experience, a life-long acquaintance of mine was once involved in a long-term relationship with a man who owned a number of 'oriental-spas' in which girls would essentially prostitute themselves. This woman came to inherit one of these spas and she fixed it up to be the nicest of such places in town, and ran a fairly transparent operation; never was a woman 'trafficked' against her will, rather girls went there willingly and because they needed to pay the bills and lacked an alternative means of doing so.

Prostitution is of course illegal, and so the morality of the issue must necessarily be addressed before I tell this woman's story as it relates to the university as conceptions of morality become legal sanctions.

Now Sigmund Freud had developed the idea of 'anal eroticism' in which he observed that affluent European kids seemed to be more obsessed with 'indecent' things than did children of a poorer peasant class, and that the extent to which this fetish did develop in peasant children it manifested at an appreciably later date when compared to affluent children. Freud's conclusion was that the poor children were less repressed than wealthy children, hence had less to speculate about. Seemingly as a consequence of a simple lack of curiosity, there arose in the peasant children a lesser desire to explore 'indecent' things.

In 1914 anthropologist Bronislaw Malinowski published the seminal work *Sex and Repression in Savage Society* in which he studied matrilineal tribes (tribes in which inheritance revolves around the mother instead of the father) of Melanisia who went by the tribal name *Trobriand*. The Trobriand allowed their children to run around naked and with little to no adult supervision. What Malinowski found with the Trobriand children who were entirely uninhibited was a near total disinterest in indecent things. He also found that an adult taking a perverse interest in children was virtually unheard of[24].

In line with all of this, there is a passage in the Bhagavad Gita (an influential Indian spiritual text) in which Krishna tells Arjuna, "he who abstains from the sense, yet whose mind still dwells on them is a pretender".

In the modern western world a high value is placed on abstaining from the acts of indecent things, but judging from our actions, our movies, video games, strip clubs, brothels, music, and television shows it is fair to say that 'indecent' things frequently have our minds attention. And it is strange to note that while it is perfectly legal to lie and cheat on those we profess loyalty to, a comparably honest business transaction entered by two consenting adults is illegal. While it is reasonable to say that our focus ought to be on both how to help women pay their bills without resorting to selling their bodies, and in the meantime – until we accomplish that lofty goal – how we might provide such women a transparent and safe environment where they can earn their living, the fact is that we've instead chosen to see prosecution as a means of forcing the issue underground, and this is a thing which hardly can be said to have the girls interest at heart as it only makes their working conditions more dangerous.

Anyway, the woman in question was running what was essentially a brothel. One day a casino was set up nearby and they incited the police to raid her business and every other business like it. These businesses had existed for years – decades even – without any such raids occurring or much of a fuss being raised. It was only when some new casino had an issue with them that the police decided to crack down on them, and this is a thing I'd later observe to be somewhat of a trend in my days of advocacy in the city of Portland, OR in which, for example, a long time strip club was targeted at the behest of a local neighborhood association who had been looking forward to a new nearby development project to begin. They made no attempt to deny this when I voiced my accusation against them. It is remarkable how adept such groups can be at selling their own cultural agenda as some moral one, at weaponizing the government as a means to spare them the inconvenience of getting to know those they vindictively slander as criminals, and how little understanding or compassion they have for those whose business, culture, or employment they target.

Now the woman in question had been attending a nearby university for the last four years, she was one semester away from graduation, and had a 4.0 GPA. But when the newspapers caught wind of the raids and dragged her name through the paper, and the university in turn saw this, they immediately expelled her and rejected her appeal. Her credits in the specialized program she was in were non-transferable, and so that was the end of her attempt to graduate. Though she would move on from this to buy a good house, get married, and have a son, to this day the issue follows her and interferes with her employment. For other women the alternative is not always as bright. Forcing the issue underground leads to women getting into situations they didn't initially intend to sign up for.

Ironically, black markets flourished when guilds were at their peak as they excluded people from legal means of making a living[21].

## **Modern Day Guilds: The Rise of the Professional**

### **History of the Medical Professions**

“...professionalism represents a form of occupational control rather than a quality that inheres in some kinds of work...The acceptance of professional authority was, in a sense, America’s cultural revolution, and like other revolutions, it threw new groups to power – in this case, power over experience as much as power over work and institutions. ”

—Paul Starr, ‘ *The Transformation of American Medicine* ’

Though guild systems formally died off by 1870, the rise of the concept of a professional wasn’t long to follow, and although guilds never really took root as had been renowned among colonists for their longevity and prowess with natural remedies, and a number of other healers who employed natural methods were common. The rise of empiricism and accusations of quackery which naturally accompany unregulated scientific advancement endeavored to undermine the legitimacy of these practitioners.

Medical schools which granted formal licenses were established by those seeking to transform medicine into an exclusive and prestigious field of professionals. Such schools proliferated after the war of 1812, but at the time they were not associated with universities, and even if they had been it was not until just after the onset of the twentieth century that states enabled medical boards to require a practitioner of medicine have a diploma, pass a rigorous examination, and complete a residency[25]. Accordingly, those aspiring to create a prestigious and selective professional class of medical practitioners found themselves in unregulated competition with one another and with ‘quacks’. This resulted in petty feuds between ‘orthodox’ physicians vs. homeopaths throughout the nineteenth century. There was also intense rivalry between medical schools, in some instances even devolving into armed conflict. Physicians were accordingly frustrated in their goals to elevate their profession,

“ Medical schools were originally conceived by physicians who wanted to raise the American profession to the dignity and privileges that medical men had in Europe. But they had no means of preventing other doctors elsewhere in the country from creating medical schools for their own advantage, too. The result was unrestrained competition in which the length of the term kept at a minimal level, requirements were sacrificed, and student fees were driven down. In seeking to raise their status individually, physicians undermined it collectively ”

— Paul Starr, ‘ *The Transformation of American Medicine* ’

Though the professional elite were certainly anxious to differentiate themselves from other practitioners in the field, their practices were relatively assured and rarely did they find themselves short of business. It was instead aspiring professionals at the fringes of the elite status – insecure recent graduates – who felt a compulsion to make formal degrees a prerequisite to practicing medicine.

Despite the economic reality that these young doctors might be barely able to keep a roof over their head, they felt a need to create a perceived gap between doctors and patients. In D.W. Cathell's *The Physician Himself* (1882 physicians were encouraged to adopt an attitude of indifference, to avoid being overly social with patients, and to never appear in public unwashed and unkempt as it would "show weakness, diminish your prestige, detract from your dignity, and lessen you in public esteem, by forcing on everybody the conclusion that you are, after all, but an ordinary person".

The American Medical Association (AMA) was established by physicians in 1847 with the goal of standardizing degree requirements, and to make them as well as membership in the AMA a necessary prerequisite to medical practice. As the vice-president of the AMA put it in 1887, "the noblest of them all, [has been for too long] left to a competition that is intolerable to an educated man"[45]. As an additional layer of siphoning off applicants the AMA suggested in a draft law in 1887 that the state board also examine applicants before they ever began studies, "... If it be said that the requirement compelling every person to study medicine to spend the time and money necessary to demonstrate to a State Board of Examiners his fitness for entering upon the important field of professional study, would deter many from making the attempt, the obvious answer is, so much the better for all the parties interested..."[45].

Any political movement seeking to affect large-scale fundamental change is bound to bring colliding interests and undisciplined behavior alike to a head, and therefore must find a means to unify, and if necessary to separate itself from such politically counter-productive wastes of energies.

In response to sectarian squabbles which had sabotaged some political efforts of the AMA as well as quacks who promoted 'heroic medicine'*imaginative and supercilious remedies* in the first two decades of its existence the AMA adopted a code of ethics in an attempt to differentiate itself from the 'riff-raff'. Part of this code of ethics was a concept similar to 'lead agency' which is a popular tactic today among educational lobbyists<sup>7</sup> in which a lobbying organization always present a unified front to the public; regardless of disagreements, one person, group, or agency takes the lead and chooses a position to present to the public or to policy makers so as to maintain a united front.

The AMA's first success was in the state of Alabama which in 1873 granted legal control to the voluntary state medical boards affiliated with the AMA to regulate the practice of medicine. Florida was the first state to implement as a prerequisite to entering the medical field both a diploma and a passing of a medical examination, the implementation of which was somewhat telling,

" Curiously, the Florida law provided that district examiners, that is, those appointed to examine prospective orthodox practitioners, must themselves have been graduates of "some medical college recognized by the American Medical Association." Inasmuch as the AMA did not begin to classify and recognize medical colleges until 1906, the Florida law seems to have anticipated the activities of the Association in the area of medical education by some seventeen years "

—Ronald Hamowy, ' *The Early Development of Medical Licensing Laws in the United States 1875 – 1900* '

Other states soon followed by requiring practitioners have a diploma, but what they came to realize before long is that simply requiring a diploma wasn't enough to stop aspiring practitioners.

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<sup>7</sup>to be discussed in later sections



Ronald Hamowy gives as an example of an Indian medicine man who, wearing war-paint and feathers, went to a local notary and had them sign for him a certificate saying that he was a certified medicine man [who presumably had underwent the traditional apprenticeship of his people]. However beneficial the methods of such practitioners might have been, the AMA could not afford such 'quackery'. Accordingly, they began lobbying for the power to close down illegitimate schools and bar naturalistic practitioners. Their aim was to reduce the number of schools significantly, enhance the curriculum, and add both a rigorous examination and three year residency requirement as a necessary prerequisite to being able to practice[25, 44].

In 1904 the AMA established the Council on Medical Education, two years later this committee employed Abraham Flexner to go around to hundreds of medical colleges throughout the nation and survey them. The Flexner report (1910) was renowned for its uninhibited harsh critiques. The number of proprietary schools had already been on the decline as a result of the tireless efforts of the AMA, but the straw which broke the camels back was the changes brought about by the Flexner Report, the result of which, in addition to the merging of medical colleges with universities, "imposed increasingly large opportunity costs on prospective physicians. The academic year, time almost wholly lost for earnings, went from four to eight or nine months, and the total period of training from two years, possibly without high school, to four then five, and eventually more than eight years beyond high school. Under the emerging system, young doctors could scarcely hope to be making a living on their own before age thirty"[25]

The cost of medical schools which were unaffiliated with universities soared as well. The dramatically increased amount of time and money to get a medical license caused many students attending proprietary colleges to drop out – a thing which proprietary colleges could ill afford. Added costs of laboratories, libraries, and clinical facilities which were now being required was enough to put them under. The ability of medical societies to offer lower insurance rates to members than that of non-members added to the compulsion for physicians to join the gang[25].

As hospitals took root in the early twentieth century, and as roads continued to develop, hospitals increasingly became the primary means of receiving care. Centralization of services multiplied the number of patients a doctor could see and this alone was incentive enough for doctors to flock to cities at a faster rate than customers did. This helped shift the focus of medical practitioners away from the patient and towards the growing centralized bureaucracy of the hospital and the acceptance of ones professional peers; whereas the traditional eighteenth century doctor might win a good reputation by his or her conviviality with patients and quality of service to them, the newly emerging professional was more reliant on his standing among fellow professionals and his or her qualifications. The aim of the new professional physician class was two-fold; to limit competition within the field and to maximize autonomy. Essentially, they wanted the best of both worlds.

“ Doctors did not simply want to maintain a “monopoly of competence.” They wanted to be able to use hospitals and laboratories without being their employees, and consequently, they needed technical assistants who would be sufficiently competent to carry on in their absence and yet not threaten their authority. The solution to this problem – how to maintain autonomy, yet not lose control – had three elements: first, the use of doctors in training (interns and residents) in the operation of hospitals; second, the encouragement of a kind of responsible professionalism among the higher ranks of subordinate health workers; and third, the employment in these auxiliary roles of women who, though professionally trained, would not challenge the authority or economic position of the doctor....

...The non-physician specialists were subordinated to the doctors' authority, usually permitted neither to practice independently of the doctor nor to interpret the results of tests or X-rays directly to patients. Nurses and technicians had no chance of working their way into positions as physicians. ”

—Paul Starr , *The Transformation of American Medicine*

World War II catalyzed the next fundamental shift in medicine – specialization, the idea of which went hand in hand with the governments newly found prioritization of funding defense research. By specializing physicians could manage to avoid competing with one another, assuming of course the general practitioner didn't overlap with the territory of the specialist, and this created a tension between the two types of practitioners. Both however, were increasingly subject to the whims of administration which constituted the downside to gaining access to hospital facilities. As research became more of a guiding theme, university medical schools came to be referred to as 'medical empires' for the fact they were becoming centralized hubs of control among hospitals. The rise of the clinical professor constituted yet another feud within medicine as they were granted positions as chiefs of medical services within hospitals – positions previously filled by practicing physicians[25].

In his book *The Rise of Professional Society* Harold Perkin theorizes that the organizing principles of professional society are 1) a mechanism of differentiating 'insiders' from 'outsiders' and 2) the management of human capital. In other words, a field of work cannot be professionalized unless a systematic means of achieving these ends has been established. To the first of these, clearly the licensing system supported by state laws has provided a strong mechanism for deterring prospective competition in the medical field – a thing which has helped to create an insulated bubble. As previously alluded to in a quote by Paul Starr, Perkin emphasizes how the notion of experience holding weight to the point that it at times is almost divorced from what skills were gained during that experience is mostly a characteristic of professional society. This can be understood by the 'insider' vs. 'outsider' mechanism; once a person gets their foot in the door they become an insider. But if an insider can suddenly and without cause become an outsider once again, then a systemic mechanism for establishing *and maintaining* a means of distinguishing insiders vs. outsiders has not really been successfully achieved, ergo, experience has become an integral part of the professional merit system.

Among laymen laborers this same pattern plays out in the field of construction in which allowing just any day-laborer to use fairly basic albeit motorized tools is often and carefully avoided, else they might claim to be performing specialized work and demand a higher wage. A study of the history of labor unions in America would reveal a similar pattern to that of the medical field, albeit in many 'trades' the use of licensing systems as a means of achieving the desired ends has been utilized to a

much lesser degree. Obviously the notion of a 'journeyman' or 'apprentice' in a modern construction originated from guild systems.

As to the management of human capital, Perkin at one point compares this to a modern form of feudalism. This is a point briefly touched upon in the conclusion of my other essay *Reinventing Communalism*.

## **The Lazzaroni**

Today the National Association of Science (NAS) is increasingly authoritative in defining curriculum across the nation. While it is acknowledged in their report *National Science Education Standards* (1996) that "A hallmark of American education is local control...", their standards are designed to define the framework within which such states can operate thereby allowing "everyone to move in the same direction." [46] As Universities become more reliant on federal funds, these standards increasingly have authoritative weight, and the report is written with an authoritative tone; "The routines, rewards, structures, and expectations of the system must endorse the vision of science teaching portrayed by the Standards". Though the report proclaims to base itself on the feedback of "teachers, scientists, science educators, and many others interested in sciences". the authors do not make any attempt to specify who 'many others' are exactly. Being as they are based in Washing D.C. and provide no accessible means for the public to participate in decision making processes beyond the occasional workshop which does not allow for public testimony, it does not seem that parents or students are a significant part of the decision making process.

Overall the NAS report is seemingly written with the intentions of solidifying the positions and power of educators more than empowering consumers of education such as students and parents. NAS is not an official part of the government though; they are a voluntary association of professional scientists who the government turns to for advice in scientific matters. Accordingly, they exercise 'soft power' which relies on influence rather than stipulated powers. Within the literature on education it is a well known tactic among international organizations (or IO's) that , "IO's exercise power by organizing three types of apparently "apolitical" and "technical" actions" 1) Classifying the world by stratifying countries according to, for instance, their level of performance... 2) Fixing meanings in the social world by, for instance, defining what educational quality or educational progress means... 3) Articulating and disseminating new norms, principles, and beliefs by, for instance, spreading what they consider "good" or "best" practices"[26].

The intention of the Standards report seems to be the formalization of a national authority in education. In fact when one goes back to the beginnings of the the NAS, it turns out this goal is in line with the original intentions of its founders Louise Agassiz, Alexander Bache, Joseph Henry, Benjamin Peirce, and a number of other scientists who together formed a group who referred to themselves as the 'Lazzaroni' – a self-mocking name inspired by a group of homeless Italian beggars and day-laborers who hung around a hospital in Naples by the name of St Lazarus. Professing that the government should be fearful of quackery which was widely prevalent at the time of the groups formation in 1848, the Lazzaroni sought to establish themselves as an advisory group on all scientific matters including government patronage towards science (of which Bache believed to be essential to the advancement of science, hence the begging analogy) and to establish "a great university, the members of which should be naturally self-elected ... a cult exclusively composed of men who had

been selected and elected by each other, because of the preeminence which each was known to have in his specialty.”[27] Influenced by the system of patronage and professional prestige that had been established in Europe, they sought to emulate this system in America, “They had for a long time yearned for an organization of a select group of leading scientists, to which would be prestigious to be elected ...They hoped, too, that an organization would bring about a more intimate relationship between science and the government, so that federal funds would be granted for the support of research, just as royalty and aristocracy supported European academics.”[27]

Despite Joseph Henry’s objections, Agassiz and Peirce met with Massachusetts Senator Henry William who in turn quickly wrote up a bill which would make the National Academy of Sciences the official advisers to the federal government on scientific matters,

“ Bypassing Henry, who had already made known his reluctance to have a bill for such an academy presented to Congress in the belief that such a resolution would be “opposed as something at variance with our democratic institutions,”... During the last hours of the session, when the Senate was immersed in the rush of last-minute business before its adjournment, Wilson introduced his bill; without examining it or debating its provisions, both the Senate and House approved it, and President Lincoln signed it. Although hailed as a great step forward in government recognition of the role of science in American civilization, the National Academy of Sciences at the time created enormous ill-feelings among scientists, whether or not they were named as incorporators. Later, Agassiz admitted that they had “started on the wrong track.” ”

—Lillian B. Miller , ‘ *The Lazzaroni* ’

Louise Agassiz was at the time somewhat of a superstar for his work on classifying fish. His legacy was tarnished however by the fact that he opposed Darwin’s theory by rejecting the idea that Europeans descended from an an ancestor which was at some point common to all ethnic groups. He went so far as to insist that there must have been some omitted section in the biblical chapter Genesis, one which would show that light-skinned Europeans resulted as an intervention by god.

Initially dismissed by their peers as an “illiberal clique”, the Lazzaronis’ aim of centralizing scientific activity via the creation of a national university failed; the U.S. was too large and [in those days at least] too distrustful of European aristocratic models of private control and prestige. On the other hand, their want to create an advisory body for all matters scientific – a cult exclusively composed of men who had been selected by each other because of the “preeminence which each was known to have in his or her specialty” has come to fruition as this is an apt description of the National Academy of Sciences today.

## **Guild Powers of Engineers**

In his study *The Death of Guilds: Professions, States, and the Advance of Capitalism*[28] Elliot Krause explored the guild powers of different professions; primarily lawyers, physicians, professors, and engineers. As the title suggests, his intention is to demonstrate that the guild powers of these professions are steadily decreasing. Most of the book ends up revolving around professors who are probably the most blatant example of a modern guild system. With respect to engineers, Krause asserts that they typically have low guild powers. Increasingly, he argues, engineers are deliberately withheld from management level positions in favor of reserving these positions for liberal arts

graduates. In Britain for example, polytechnic institutes where engineers are trained are considered inferior to universities in which students receive a liberal education,

“ ...there is the prevailing class bias in Britain. Because a minority of engineers come from middle – or upper – class homes, most lack the social polish and vocabulary that comes from a university background. Many British companies have separate dining facilities for the various ranks of employees, for example, and engineers usually are prohibited from attending the management dining hall. This kind of social snobbery, of course, may be one of the reasons why British industry is so far behind: those who don't know production manage it, and those who do are cut off from management.” ”

— Elliot Krause , ‘ *The Death of Guilds: Professions, States, and the Advance of Capitalism* ’

During my own years of graduate school spent studying physics, I slowly [too slowly] began to grasp that science curriculum and the rigid degree system have indeed become more than a means to prepare people for jobs which require mathematically complex and counter-intuitive tasks, but they perhaps are also a means of relegating those with a knack for scrutiny to reductionist positions that are wholly removed from human affairs. On their part, many aspiring scientists embrace this scheme. It is interesting to compare however, the drawn out and strained – almost crushed – look on some professors faces to that of the students’ who are close to star-struck at the idea of having heir labor confined to an atomic scale event.

To this however, I can relate. As someone with a need to channel my compulsive energies into a craft – physical or mental –, being underpaid and overworked was preferable to ‘systemic soldiering’ (a term used among labor unionists who learned to intentionally drag their feet on the job) and the cult of personality which is even overtaking manual trades. Like most physicists I held a conviction that a person ought to have more than just gainful work, but work which is suitable and satisfying – something which might occupy them for life; a craft. It is perhaps this kind of compulsion and naive idealism which seems to be common among those who pursue physics, math, or engineering.

Engineers of course are probably the most worldly of the three in the sense that there is a well-defined private sector for their trade. Engineers are also somewhat of an exception among technical disciplines in that formal specialized certifications (e.g. a PhD) are not usually needed to get into the field. Neither do engineers typically aim for academic level positions. As noted by Krause, the job stability of engineering fields is the trade-off for being relegated to a state of permanent sub-management positions which is increasingly a trend within the profession. But the valuation of job stability over high risk gains was a common trait of guilds. So too was the want to have the satisfaction of specialization in a skillful trade as engineers enjoy – even if it comes at the expense of upward mobility. The difference between craft guilds of medieval times and engineers today however is reductionism; being confined to one small part of a task rather than getting to see the whole process/ product through from start to finish.

## The Death of a Liberal Education

“ You will find more in forests than in books. Woods and stones will teach you more than any master ”

—Peter Abelard, ‘ as quoted in [9] ’

As already mentioned, Educational philosophy in Europe underwent a paradigm shift in the seven-teenth century according to the principle that “education should proceed from the simple to the complex, and the concrete to the abstract.” and also that “... the study of real things should precede the study of words about things.” Here we find the beginnings of today’s curriculum which is linear in its progression and ‘objective’ in its aim. These shifts are obviously in line with the scientific principles more than that of the humanities, and so it is, being as we live in an age of science, that we’ve continued to witness this trend in recent decades. In *The Closing of the American Mind: How Higher Education Has Failed Democracy and Impoverished the Souls of Today’s Youth* (1967) Allen Bloom argued against the alarming trend of allowing science to devalue a liberal education,

“ “...colleges do not have enough to teach their students, not enough to justify keeping them four years, probably not even three years. If the focus is careers, there is hardly one specialty, outside the hardest of the hard natural sciences, which requires more than two years of preparatory training prior to graduate studies. The rest is just wasted time ... The so-called knowledge explosion and increasing specialization have not filled up the college years but emptied them... These great universities—which can split the atom, find cures for the most terrible diseases, conduct surveys of whole populations and produce massive dictionaries of lost languages—cannot generate a modest program of general education for undergraduate students. This is a parable for our times. ”

— Allen Bloom , ‘ *Closing the American Mind* ’

On the students part, they do much to forfeit the humanities before they even appreciate the true nature of these subjects let alone their power. The Navajo Indians knew plainly that words shape reality, they don’t just describe it; “In the Navajo view of the world, language is not a mirror of reality; reality is a mirror of language.” See Pratt, Christina. *An Encyclopedia of Shamanism*. New York: Rosen Pub. Group, 2007. But as a liberal education is increasingly devalued, graduates ability to articulate themselves and engage in meaningful discussions which shape their realities rather than awaiting for social science experts or professional managers to descend from above to define them likewise atrophies.

The dismissal of the humanities is especially apparent within graduates of technical fields, e.g. math, physics, engineering, chemistry, etc. Problem solving gives one a deep sense of competence which as previously mentioned is one of the primary elements in the development of intrinsic motivation[34]. Accordingly, as in the case of a professor, it becomes like a drug, and the university comes to be seen as the drug-house. By enabling the addictive tendencies of compulsive technical minded people, and by inflating their ego by patting them on the back at every turn with artificial rewards such as good grades along the way, universities have done graduates a great disservice.. Philosophy, history, language, and political science possess a much greater capacity to shape the direction of society than do reductionist ideals of science. The likes of Socrates and Aristotle held a tremendous influence over shaping the western world. The thoughts of Edmund Burke and David

Hume helped shape the government we abide by today.

The belief that science can in some way substitute for the atrophication of social intelligence and wisdom among populations which it has caused is more than dumbfounding – it is dangerous.

What one comes to find sooner or later when reading history books is an appreciation for the fact that it is fiction rather than objective truths which has allowed humans to amalgamate into large cooperative societies. Anthropologists Peter Wilson[] hypothesised that the introduction of physical division between individuals and/ or familial groups [privacy] disrupted our natural communication mechanisms, deteriorated our trust, and skewed the natural social contract which exists between members of a group. Ergo, he posits, there arose accusations of witchcraft to help explain the outcomes people did not understand (e.g. why one person came to hold so much land and property compared to others). This is in line with French philosopher René Girard's 'scapegoat theory' in which he asserts that a fundamental mechanism by which humans cooperate – what allows societies to form in the first place – is that they collectively agree to blame their problems on some individual person or thing. Then there are 'legal fictions' – a notion which acknowledges the fact that all laws are ultimately based on some *subjective* moral code which people [not all people though] in some way – consciously or otherwise – collectively agree to accept. Among ancient tribes constructing the myth that all members descending from some other-worldly ancestor allowed individuals to identify as kin. And here we have seen that there is even some mythology which has gone into [re]defining the professional merit system.

So what happens when people lose their ability to shape their realities subjectively with the power of philosophy? It is in all likelihood nothing short of a biological breakdown in communication; expert upon expert espouses fact upon fact, and at the end of it all no one has a clue what just got accomplished or what new direction the collective whole ought to go next.

At the risk of contradicting myself, neither is this to say that Universities would do well to impose a general curriculum.

Jean-Jacques Rousseau (1712-1778) had the idea that education of any academic kind should not be imposed on children. Under his philosophy, a child ought to be allowed to grow up collecting life ex- periences more than academic experience. When the child hits an unspecified stage of maturity and/ or inclination, *then* academic schooling should begin.

There is a world of difference between reading books to get an idea and reading books so as to aid oneself in explaining an idea which has already grown within them. The former is not an act of self-discovery so much as it is one of one of emulation, while the latter only aids the individual in articulating to others ideas born of self-discovery. Reading books just to get an idea, especially if it comes at the expense of life experience, runs the risk of stifling innovative and motivating ideas before they have a chance to grow roots in their native environment. In contrast, reading books as an aid to help one *explain* ideas which have already taken root within the individual only aids the individual in articulating themselves by connecting their ideas to those of others.

Saplings don't thrive under the shade of full grown trees.

It is only when one has gained some amount of life experience and has accumulated a natural curiosity to explain him or herself to others that the time is ripe for a liberal education to ensue. There is little point to reading history for example, if you don't have a thing which you hope to relate

it to in the present. And it is no coincidence that many prominent leaders throughout history – especially those who wish to implement significant change – have been voracious readers of history books<sup>8</sup>. While reductionists might rightfully pride themselves on having helped create technology, it is only the specific ways in which it is actually implemented that transforms society, and to this end philosophy has done more than any other discipline to affect the world we experience today. It is then curious to note that physics was commonly classified as natural philosophy until sometime in the second half of the twentieth century – right about the time great breakthroughs seemed to stop coming.

To be sure, and as Rosseau notes, there are relatively few ideas that one comes up with which are truly a result of one's own experiences. But to have even *one* of these ideas successfully take root and to grow unhindered is to have a unique base from which all other existing ideas can be related to in an individual and unique way. As the Germans would say, this would be the construction of one's own unique *Weltanschauung* (world-view). The imposition of structure before one has established their own world-view not only deprives individuals of their opportunity to develop their own ideas, but it can instill in them the notion that they are not capable of doing so. For all but scientific forms of literacy it can be said today's generations are actually appreciably less well read than people in the nineteenth century[14].

## **The Observer Based Reality**

To relate the devaluing a liberal education to reductionist science curriculum, it is helpful to briefly expound upon the well known [among scientists] differences between math and physics. Whereas mathematics grants itself freedom to make postulates (assumptions) upon which arguments can be constructed, physics does not grant such concession. Mathematics basis itself on human logic, while physics bases itself on human observation. As a result physics does not have such a thing as proofs; they simply don't exist – least not at the most fundamental level. There is no single thing in the entirety of the physical world to which we humans may point to and claim with objective certainty, "this is the fundamental truth to the universe", and there probably never will be. Consequently, physics operates off of a system of proposition followed by rigorous deduction; proposition (not an assumption that a thing is true, rather a proposal to try some idea on intuitive grounds) followed by a rigorous round of proof by disproof; creatively imagine some scenario(s) then shoot everything down [*by observation rather than logic*] and accept that whatever remains standing is as close as we've come to the truth at the moment, i.e. it is a process of elimination which is ultimately solely based on human observation.

No mathematical theory could tell us why gravity acts as it does, we simply observe it to. We *attempt* to model its effects with some equation, which has to date proven approximately true. Because billions of observations and counting all show us that gravity is an attractive force, we accept a mathematical model that this is so. But what if one day we drop an apple and it goes up instead of down? Just one observation is enough to tear down centuries of theorizing. The caveat is that the observation must also be reproducible to others. This experiment of course sounds absurd to some, but in fact at the quantum level the idea that gravity might follow a cubic rather than a square force has been entertained, and this has the implication that gravity could go in two directions (because when you raise a quantity to the third power instead of the second negative results can occur).

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<sup>8</sup>full disclosure; some of them (e.g. Mao Zedong and Hitler) were psychopaths.



Mathematics might be subjective in the sense that it ultimately bases itself on human assumption (and its worth noting that human observation is no less prone to fallacy), but the freedom to make assumptions is a very powerful thing in shaping human societies. Moreover, the distinction between subjective and objective (and consequently between math and physics) is an illusory one beyond convincing people that there is some fundamental difference. One can spend a lifetime searching in vain for a single thing in this physical universe which is truly objective at the most fundamental level. This is essentially what quantum theory is based on; as a byproduct of the 'uncertainty principle' no observation is truly independent; the observer and the observed cannot *actually* be separated. It is no coincidence that mathematicians readily find employment in numerous private sector jobs while this is a thing one trained in physics has a harder time selling his or her skills in. Businesses like statistical and other mathematical models. While a recent physics graduate may instinctively tend to retreat to a dark corner and scrutinize the weaknesses of the model for the fact it doesn't represent objective reality, the mathematician (and I'd lump the engineer in here as well) instinctively *make* it a physical reality.

A physics instructor of mine once almost defensively lectured the class on how physics describes *real* things but that mathematics does not. Being as many instructors such as this have hardly if ever ventured outside of universities at any point in their careers, they may lack an appreciation for the capacity for words to shape reality – even thoughts. Words which have little to do with science have done much to shape the very theories which characterize science today. Words shape the curriculum and the institution which today keeps students so busy during the prime years of their brains life (20 – 30 years old according to neurological research) with digesting then regurgitated centuries old material that they have little time or opportunity to explore their own intuitive inclinations. Again, is it any wonder that the rate of fundamental breakthroughs in physics has essentially flat-lined since the 1930's?

The irony is that what theories we develop to describe our physical reality are in many ways shaped by other things which are entirely subjective in their nature. Ergo, we are in a sense observing our own constructed reality – let's call it the *observer based reality*.

The observer based reality is even more readily apparent at regularly occurring local, state, and national meetings which develop policies that govern or at the very least influence peoples daily working lives. Digging through a pile of evidence to find whatever supports ones view, in conjunction with savvy political skills, can have the effect of steering the attention of others towards some particular corner facts which is not entirely representative of *all* the facts, and this is a thing which can cause a lopsided view of the 'objective' reality and can go a long way to influence policy in ones preferred direction.

Another professor I had in quantum theory once shook his moppy and strung out head of hair in an effort to emphasize his frustration, "It's all wrong – all of it. We know this. It's only a matter of how long until we *prove* it." But so long as our educational system constrains our observations we probably won't prove much. But by 'prove' I really just mean change to another wrong theory – a new world outlook, one that actually serves our needs.

As previously mentioned, to alter the world view of people was the role of shamans of which either came under persecution or were ridiculed the world over beginning in the nineteenth century – a time in which much of the world adopted the philosophy that words describe real things rather than

giving shape to them. What the twenty-first century brought us more than just advanced tools was the opportunity to weaponize reductionism. Some strange byproduct of this seems to be the notion that to avoid developing ideology is to be objective. But it is not possible to lack ideology; everyone embraces some kind of system of thought, and if there is exception to this it certainly is not those who stand by a well-defined educational system and who have been shaped by what is largest system of indoctrination ever contrived. To preeminent scientific thinkers like Benjamin Gould science was a means in itself, and scientists a thing deserving of special protection by society[27].

The problem with the ideology of objectivity is the observer based reality; that our thoughts and motives – our ideology – will inevitably influence our thinking, guide our research, and eventually shape our theories.

In the movie *Interstellar* (2014) there comes a point near the end of the movie in which the main character – an engineer and astronautical pilot by the name of Cooper – and his robot M.A.R.S. get trapped in a black hole which brings Cooper into a fifth dimensional space in which he is able to go back in time and reach out to his daughter. The robot, thinking extraterrestrial multidimensional beings had constructed the space and brought them to it, tries to discourage Cooper from his attempts to transmit data to his daughter about the black-hole in hopes of enabling her to crack the theory of gravity and in so doing save the human race on earth by allowing themselves to simply float away from it<sup>9</sup>, but Cooper has a revelation; *we* constructed the multi-dimensional reality of the black hole just as we did our own bias conceptions of gravity to begin with,

“ M.A.R.S. : They didn't bring us here to change the past. Cooper : Say that again. M.A.R.S. : They didn't' bring us here to change the past. Cooper : They didn't bring us here at all...don't you get it M.A.R.S.? We brought ourselves here. We're here to communicate with the three dimensional world. We're the bridge...my connection with Murph [Coopers daughter]; it is quantifiable Don't you get it M.A.R.S.? They are not beings – they're us ”

— *Interstellar* (2014)

By “We're the bridge” Cooper is referring to the idea which earth scientists had been contemplating in hopes of saving the human race, namely that only gravity can traverse the dimensions of time and space. Nobel laureate in Physics Kip Thorne was the an executive producer for the movie, so I'd probably not be the first to say that Physics as we know it leaves wide open the door for such quantum strangeness to happen. What's really interesting about the film is that by the year 2067 – just over fifty years past the movies date of release – virtually everything in the world had changed *but* the educational system. Coopers son is denied entry to the university and classified as a life-long farmer by the age of 15 for scoring a few C's and High school teachers were still playing an authoritative role in deciding what “propaganda” to deliberately put into text-books. Conveniently, it is a hand-full of scientists who use science to save a portion of the human race from the very problems that science had caused in the first place. While the fate of the poor laboring farmers left behind on planet earth is left unsaid, the conclusion is obvious; the “world's best kept secret” [a large space-station] probably couldn't fit them all. But we know those who do survive go on to live floating in space in a highly scientifically advanced society.

There is an eerie parallel between this and an excerpt from the book *Gilliver's Travels*,

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<sup>9</sup>if all of that made no sense, watch the movie.

“ Laputa is a flying island ruled by natural scientists. It is, of course, a parody of the British Royal Society...In this strange new land Gulliver finds a theoretical preoccupation abstracted from primary human concerns, one whose beginning point was not the human dimension, but which ends up altering it...The only studies are astronomy and music, and the world is reduced to these two sciences. The men have no contact with ordinary sense experiences. This is what permits them to remain content with their science. Communication with others outside their circle is unnecessary. Rather than making their mathematics follow the natural shapes of things, they change things so as to fit their mathematics...

...He also thinks the scientists have a sense of special right to manipulate politics. The Laputians' political power rests on the new science. The Flying Island is built on the principles of physics founded by Gilbert and Newton. Applied science can open new roads to political power. ”

—Allen Bloom, *'Closing the American Mind '*

What is scary about how the movie *Interstellar* parallels what was written to be a satire almost three hundred years ago is that the writers of *Interstellar* were not joking.

## **Part III:**

# **Education Today**

### **Higher Educational Accreditation and Lobbying**

In the post World War II era higher education was widely considered to be a public good more than a private investment. Educational lobbyist in the 1960's therefore didn't have to advocate too hard for their needs. "Their activities reflected the notions that higher education was a good in itself and would therefore have society's unquestioned support, that higher education need only fulfill its traditional missions of teaching, research, and community service as the institutions defined them to be, supported, and that these missions were so important that higher education should be protected from governmental interference as it pursued its lofty aims[51].

In the late 1960's and early 1970's higher education instead came to be perceived to be a private investment, one which primarily bestowed private rather than public benefits. As the higher education act was up for renewal in 1972 congress was deliberating whether to direct aid at students or to give it directly to colleges. Representatives of the American Council on Education (ACE - one of the 'big six' lobbying firms which represent the interests of higher education in Washington D.C.) began to speak as though they had presumed they'd be the recipient and that the question was simply a matter of how much they were going to get[23, 51].

Congress of course voted to direct aid directly to students, and this has likely been a significant contributing factor to how inefficient and costly higher education has become as increasing the cost and decreasing the efficiency for consumers of education is undeniably a source of job security for educators.

To this end it has been suggested that federal funding should be disconnected from the idea of accreditation[52].

Like licensing, the role of accreditation is supposedly to protect consumers of higher education from quackery, and while it can be said that they do a fair job at this, this does not mean that people are incapable of making discerning judgments for themselves. Furthermore, by using the prospect of quackery as a red herring, both the public's and the governments attention is diverted from more common and more important issues.

As it turns out, accrediting agencies are riddled with conflicts of interests, one being the fact that the same people who review a given university are often members of a nearby college who will in turn be reviewed by the those who's program they are currently reviewing. The review process is therefore, "highly collegiate"[52]. Accrediting agencies judge entirely off of inputs rather than outputs, i.e. they go through a checklist that assures a given university is going through the right motions rather than checking to see if these motions are actually meeting their target goals (of which accrediting agencies conveniently leave it to the institution to define for themselves). Beyond this, the effects of accreditation are understudied and consequently remain poorly understood. According to By George C. Leef and Roxana D. Burris

“ Although accreditation is usually justified as a means of giving students and parents an assurance of educational quality, it is important to note that the accreditors do not endeavor to assess the quality of individual programs or departments. The visiting teams do not try to check on the quality of Professor Smith’s English Composition class or that students in Professor Jones’s American history class actually have learned important facts about American history. The accreditation system is not based on an evaluation of the results of an institution, but rather upon an evaluation of its inputs and processes. If the inputs and processes look good, acceptable educational quality is assumed. It is as if an organization decided which automobiles would be allowed to be sold by checking to make sure that each car model had tires, doors, an engine and so forth and had been assembled by workers with proper training—but without actually driving any cars ”

—George C. Leef and Roxana D. Burris, *‘Can College Accreditation Live Up to its’ Promise?’*

Similar to the case of medical accreditation, educational accreditation agencies are voluntary organizations and accreditation for colleges is an entirely voluntary thing. What gives accreditation such power is the stipulation that a student can only receive federal aid if they attend an accredited institution.

But higher education has a strong lobbying presence in Washington D.C.

Returning to the post World War II era, higher educational lobbyists were not accustomed to fighting for their funding, and to do so was looked down upon as a publicly funded non-profit organizations lobbying for their interest as would a private firm is a thing that many considered to be morally reprehensible. Harold Bloland defended this in 1974; “The direct influencing of this legislation; or lobbying, has been considered in the past as vulgar... In reality, lobbying actually means letting the people in legislative decision-making positions know the needs and positions of the higher education community”[51].

Despite disdain from the public, higher education did what it had to do to survive.

Academics typically do not like to engage in conflict, but that does not mean they simply roll over and give up the fight. It can instead only mean that they adopt less than forthright tactics. Higher educational lobbyists started out bashfully, and they made a number of mistakes in the seventies, particularly with regard to organizing and developing actionable consensus among what was an increasingly large number of lobbying firms in the capital throughout the 1970’s and 1980’s. As is somewhat typical of academics, they’d have an amicable discussion among professionals in which no one really stands up to anyone else but everyone is heard and they’d all walk away with no actionable plan or any unified consensus. Consequently, congress really didn’t know how to help them.

Before long “amateur hour was over”, as one congressmen put it in 1994[23]. Higher educational lobbyists within the big six adopted the concept of ‘lead agency’ which implies that one person takes the lead on a given topic and, after discussing the matter, at some point the issue is relegated to one person, group, or agency which is to present a unified consensus to congress regardless of whether there remains dissenters. The big six lobbying association pride themselves on being democratically structured, which implies that the university presidents cast ballots, but students themselves don’t vote for either university presidents or big six representatives – many students don’t

even know what the big six are. Even within this bubble of university presidents, the degree to which these associations are truly democratic in the sense that the will of the individual is represented is uncertain. According to Constance E. Cook,

“ When Cosand et al. (1979) conducted their survey of colleges and university presidents fifteen years ago, about half of the presidents thought the associations should arrive at a policy compromise when there was a difference of opinion on a policy issue. The other half thought the associations should present different positions to the federal government. The 1994 survey data indicate that there has been a substantial change in presidents' views on this strategy over the years, with many more favoring consensus now ”

—Constance E. Cook, *Lobbying for Higher Education: How Colleges and Universities Influence Federal Policy* ’

Beyond a concerning dismissal of the idea of 'tyranny of the majority', lead agency also happens to be a characteristic trait of guild system, and like medieval European guilds higher educational lobbyists tend to paint a doom and gloom scenario which would certainly result if they are not allowed to interject to defend the public from themselves. In the words of one attendant at a congressional hearing, after claiming that no one wanted to be the enemy of education because it just doesn't look good, "we wear white hats." [23] which is indicative that proponents of higher educational lobbying efforts tend to view themselves as white knights who safeguards the public good.

If lobbyists were truly democratic, why don't those who have to pay for and consume educational services get a vote? Instead students are granted 'student body governments' which really are surrogate governments – a bone for students to chew on while all the real lobbying goes on half way across the state or in Washington, D.C..

In my own experience it is often found that, for students, student body governments tend to be seen more as a means for students to put a thing on their resume than to affect any change which they really believe in. When I relocated from Portland, OR to attend Washington State University in the middle of nowhere<sup>10</sup> I found myself wanting to compensate for the fact I no longer had access to a city council meetings to be engaged with. I ended up one of two people lurking in the back of student body governments and otherwise tacking onto a subsidiary group who met once a month and had only a handful of members. This was supposedly a research based policy group, but they had a tendency to treat science as a popularity contest, in fact they went so far as to say we should stick to actionable statements instead of methodological ones (i.e. statements which question the methods of a study). They claimed to be making an effort at advertising in an effort to improve their numbers, but seemingly dodged any attempt to make good on this claim. Come to find out this group was all from the neuroscience department, and they saw the group as a means of networking for jobs by inviting various professionals for talks, but they had little apparent interest in actually affecting policy.

Universities rarely provide regularly scheduled opportunities for anything which might be compared to civic engagement in real politics (e.g. testimony at city hall) and when they do such things are so little advertised hardly anyone is aware of their existence. But there are ample opportunities to join clubs and various associations. All of this lays a strong foundation for a minority few to project their ideologies as some kind of majority. But like much of politics today, the true majority of

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<sup>10</sup>I was actually raised in Spokane, WA which is only 90 miles north of Pullman, WA.

students are passive and dejected as the system has conditioned them to be through civic engagement systems which substitute the powerful art of oratory – the opportunity to challenge the very dispositions of a crowd and potentially unite people who previously had no common interest or point of view – with clubsmanship – the opportunity to align with like-minded people, reinforce commonalities which already exist, and strengthen barriers which segregate those who aren't a member of the club.

## Privatization Schemes

“ The most successful tyranny is not the one that uses force to assure uniformity but the one that removes the awareness of other possibilities, that makes it seem inconceivable that other ways are viable, that removes the sense that there is an outside.” ”

—Allen Bloom, *'Closing the American Mind'*

“ Court laid the foundation for the student's right to freedom of conscience'...individual freedom of conscience is a precondition for democracy. ”

—Rosemary C. Salomonel, *'Common Schools, Uncommon Values: Listening to the Voices of Dissent'*

Karl Polyani argued long ago that 'free markets' never have, nor ever will be able to exist without some form of government regulation. Nevertheless, in America many people value the concept of free markets and consumer leverage, the latter of which is only found when we shoot for the *ideal* of free-market competition. But education has obtained a special status in this regard; it is practically taboo to compare buying an education to buying a car or any other commodity for which people are keenly aware that their interests are best served by unrestricted competition between producers.

But why?

When we buy a car the company has much incentive to list all notable features of the vehicle being sold, potential buyers get to test drive it, and buyers usually have the option of purchasing a warranty of some kind. The seller has incentive to maximize transparency (or to maximize the amount of information about the product being sold to the consumer) because the buyer has a plethora of alternative options; sellers within the local area of a wide variety of both new and used cars. In contrast, state governments typically avoid funding more than two universities within a few hundred miles of one another, and even then it most often can be said that one is a research university which offers a variety of programs extending to the PhD level (a division one school) while the other terminates most of its programs at a bachelors degree and offers only a limited number of masters degrees (a division three school). In terms of information being transmitted to the buyer, one rarely knows in any appreciable detail the method which is going to be employed by a given professor, and one often has only a couple of professors from which to choose from – often times only one at the graduate level. Whereas one might buy a car any time of year, students are expected to arrange their life according to the time-table of the university.

Most importantly, an automobile manufacturer has much incentive to minimize production costs relative to the quality of product which they aim to produce. The manufacturer therefore considers

*all* feasible innovative means to achieve the desired level of quality product. In contrast, a university typically avoids acknowledging the fact that students (least not all students) don't actually *need* teachers, administrators, and big expensive centralized campuses in order to achieve a high quality education. Often times, older and cheaper text books are just as good if not superior to newer ones.

What students *need* are grants/ loans to help sustain in their time of study, a sense of community to keep their sanity, and others they can reach out to if and when they get stuck.

As for a sense of community, universities are often defended as being 'generators of social capital', i.e. places where community grows. While it is certainly true that universities manage to shove a number of people into one place where they work together, 'community' is a highly personal and subjective thing which varies from person to person. Whereas one individual may find a sense of comfort in a university setting, another may feel they've been coerced to leaving where their sense of community exists – their home, family, and friends – in order to fulfill the residency requirement<sup>11</sup>. Modern societies have come to use schools – K-12 and colleges – as a crutch for a lack of communal outlets. But alternative means of achieving communalism are unlikely to take root so long as this remains the case. The fact institutions of indoctrination are hailed as epicenters of community I think says a lot about how depraved our modern cultures are of *real* communalism.

As for having someone to reach out to if and when a student gets stuck, fulfilling this role actually constitutes a relatively small portion of a teachers job, and it is often the case that teachers are not even the ones students do turn to in this case. While it may be true that many students do prefer a teacher, it is also true that most anyone who has gone through the public or private [basically anything other than home] schooling system has long been trained to such a dependency. In either case one persons preference does not justify another being deprived of options. Higher education is not a political election; it is a personal investment, or at least that has been the decisive view of congress since the 1960's.

As far as options are concerned for k-12 education, beyond the standardized schools developed during an increasingly outdated age of industrialization, the two primary privatization schemes which have in recent decades become available to consumers are charter schools and the voucher system.

The voucher system is a system in which governments provide vouchers to parents, and these vouchers can be spent on any qualifying school the parent desires provided their child is accepted and [often stipulated] their child's attendance does not interfere with that of another who resides within the natural district boundaries of the school. The idea is to restore consumer leverage by increasing consumer options and therefore creating competition between schools. The voucher system has faced heavy opposition from educators who feel k-12 schools should not be subject to competition. Other reasons for opposition against the voucher system primarily seem to center around the idea of separation of church and state[26]. Opponents further claim that such a system is susceptible to exploitation and fraud (e.g. quackery), waste, poor management, and over-regulation of private

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<sup>11</sup>I myself lost out on what turned out to be the last two years of my fathers life so I could fulfill the residency requirement at WSU. When I finally found a researcher willing to take me on as a phd student it was his position that collaboration on theoretical projects could be done from anywhere in the country – that working together through a screen was superior to in-person collaboration in some ways. Nevertheless, as part of their rush to force a return to in-person learning after the Covid pandemic, the university insisted I continue to relocate my life for just one class. Losing my father was by that point just the straw that broke the camels back; I withdrew to self-study quantitative finance. This would only partially explain my bias against the university system.



schools[37]. Being as the voucher system hasn't really had a fair chance, much of this is still within the realm of speculation.

Courts are not entirely sold on whether religious institutions should be excluded from being eligible to participate in the voucher system, the reasoning being that intelligible middle ground options to the dilemma are achievable. For example, after proposing a sliding-fee voucher system which stipulates that participating schools not discriminate on the basis of race, sex, or gender, Professor of law Rosemary C. Salomonel notes, "by requiring ... participating schools present core values throughout the instructional process as well as the "hidden curriculum," [i.e. the often unspoken national purpose of education (see closing paragraphs of this section)] the proposed model assures that we preserve certain democratic principles and cultural commitments which bind us together as a nation." [37]. In other words, innovation in school structure need not contradict our capacity for creating institutions which socialize children to the desired effect.

Social democrats have long opposed voucher system legislation, and as of at least 2007 it could be said that every major attempted voucher reform had failed. Those in support of vouchers have found it difficult to organize on a large scale against teachers and school bureaucrats who have fought to keep the system standardized and insulated from free-market competition[26]. Accordingly, charter schools have been for decades now the primary means of privatization in America.

Charter schools were originally proposed in 1974 by a Ray Budde – a retired professor of the University of Massachusetts. Budde's idea was to allow for direct appeal between teachers and school boards; to cut out the administrative middle men such as principals and teacher union representatives. As summarized by Zander Shermann,

“ The name charter was chosen because it conjured the idea of a temporary, specific arrangement between two parties and not the longstanding partnerships of regular public schools, which tended to get in the way of genuine learning... For the first time in the history of North American academia, Budde was implying not only that there was a distinction between school and education, but that there didn't have to be. The charter would be signed by both parties; then teachers would have a limited number of years to carry it out. Since the schools would be operated independently of government and union, money could be spent wherever the teachers saw fit, and since their own jobs were constantly at risk, it was in their best interest to be good at what they did. ”

— Zander Shermann , ‘ *The Curiosity of School* ’

By the fact that charter schools were to be judged by their effectiveness on an annual basis, and by putting more power in the hands of the teachers (who parents and children of course have regular and direct access too) charter schools would go a long way in restoring consumer leverage to k-12 schooling.

Or at least that was the idea.

Just as the idea began to gain popularity, private think tank firms contrived an alternative charter-school model in which the administrators were still present, only now they were to be outsourced to the highest bidder thereby giving birth to the more common form of what we today conceive of a charter school – a far cry from the decentralized system Budde had in mind[14].

In general, today charter schools are defined as publicly funded schools which serve as an alter-

native to public schools; schools that are judged more on outcome rather than the standardization of their methods. However, being judged by standardized results has the inevitable effect that many charter schools are fairly similar to today's public schools, some notable exceptions being Waldorf education and Summerhill school. As the name implies, charter schools operate under charter signed by the private agency which provides services and by the state who provides the majority of the funds. Even though they did not pan out to be precisely what Ray Budde envisioned, they still prove to grant communities more flexibility in the teachers they hire. As one administrator put it, "The charter was a vehicle to assert that we would be as inventive as we needed to be to address the issues of student achievement and learning"[55]).

There is no consensus on whether charter schools should be considered private or public, but to avoid confusion we will hereafter consider them to be private institutions.

Low fee profit schools (LFP's) are an increasingly utilized concept in developing nations. The idea of a LFP is somewhat ambiguous as it is still a relatively new concept, but in general they are defined as, "private schools that have been set up and are owned by an individual or group of individuals for the purpose of making a profit, and are supposed to be "affordable" for low-income families". The idea of making a profit and serving low-income families it has been found does not present a contradiction. Furthermore, LFP's in developing nations have garnered a reputation for being superior in quality and devotion of teachers, rigor, and management when compared to state-run schools. Many low-income native families prefer LFP's for all of these reasons and the fact that they are often more disbursed and therefore closer to home (because these families often lack adequate transportation<sup>12</sup>). They are also widely perceived to be more respectful of cultural differences[26].

Criticisms of LFP's have been that they typically seek to increase student to teacher ratios and facilitate cultural and economic stratification. The former argument seems to be based on the a priori assumption that a lower teacher to student ratio should necessarily be equated to better student performance, and while there may or may not be sufficient evidence to support this notion (the efficacy of LFP's compared to state schools is, for example, highly contentious) it is one that is more relevant to educational models which put the teacher in the center of the classroom (as compared to, for example, the Dalton Plan).

Economic and cultural division is both the irony and the danger of diversified consumer choice models. It is often found that granting people diversity in their choices for schooling allows the rich to segregate themselves from the poor (or the less poor from the extremely poor) thereby reinforcing rather than leveling existing inequities among people. Yet the incentive for stratification goes both ways as lower income communities can develop their own sense of community and culture which is as unique as it is potent. It would be presumptuous of our understanding of human nature to say that only those with more money have incentive to segregate themselves from those who have less.

According to one group of UCLA researchers, charter schools within the U.S. are often perceived to be a tool which would facilitate "... groups of parents, educators, and community members who wish to create a "... 'safe space' or 'homeplace' ... for students of a particular racial or ethnic group who live in the surrounding community ... people of color fighting for greater independence from what they see as a hegemonic state-run system "[55]. The author's go on to describe a community meeting in which "Speaker after speaker-older adults as well as young-thought that maybe we need to have

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<sup>12</sup>and/ or have a stronger attachment to their local community?

our own schools. We need to decide our own curriculum. We can decide how our children are going to learn, what they are going to learn". Inevitably the authors acknowledge that there is a flip side to allowing ethnic-based cultural delineations in schools in that it has the potential to reinforce existing inequities between ethnic groups, with those of European descent gaining the upper hand. Out of respect for this, the researchers begrudgingly admit that maintaining 'permeable ethnic boundaries' is in the long run the more desirable strategy to pursue.

Aside from the fact that the UCLA researchers seemed to have overlooked the national purpose of education which, the authors also fail to acknowledge that educational systems were at one time used to indoctrinate a number of European ethnic groups as well; Italian, German, Irish, etc. They too experienced an appreciable degree of discrimination (probably more in comparison to today's immigrants being as it was the nineteenth century). Whereas these immigrants likely perceived an 'immigrant-wall', as one Hispanic immigrant said to me in regard to the situation in the U.S. today, "one day, that *white-wall* will come down".

No ethnic group – be they of European, African, or Hispanic origins – has enjoyed the opportunities of the newly established U.S. without [willingly or otherwise] taking on the obligation of creating some kind of shared culture. And there is good reason for this; as has been seen in the case of U.S. history, the idea behind Horace Mann's common school (and which continues to be the primary purpose behind today's elementary and middle schools<sup>13</sup>) was to provide stability to the United States by facilitating a shared culture among youth. No ethnic group wins if the United States becomes so embroiled in internal disputes to do with racial and economic classifications that it devolves into a third world country. Being a minority today does not excuse one from the obligation to create some kind of shared culture. Supreme court rulings have upheld this sentiment. According to Salomone, "Court decisions reflecting this perspective emphasize the inculcative or indoctrinative nature of schooling for a given purpose, maintaining that public schools not only may but should "influence their students to adopt particular beliefs, attitudes, and values".

None of this however, is to say that it is the government, industrial capitalists, school administrators, or even teachers who ought to be the ones to say precisely what that shared culture is. To date, standardized methods which place the teacher at the center of education, administrators at the top, and students in a passive and obedient role has become the dominant form of education, not because it is the only or even the best way of achieving the ends of education (be it learning or socialization), rather the standardized method has prevailed to date seemingly because by the quirks of human cooperative instincts we manage to bully one another into uniformly adopting whatever simplistic method we know will provide stability while simultaneously transmitting some amount of knowledge – even though it may only be barely enough to warrant calling it education. Experimentation, innovation, and therefore efficiency comes neither naturally nor willingly to large crowds, of which are characterized by a very different nature than the individual intellect when left to its own devices (and this is a thing which is remarkably immune to individual intelligence level<sup>14</sup>). It is human inertia which mostly explains why educational systems have not been allowed to evolve beyond what is really still an infant stage. Beyond a few experiments in Germany, the idea of educational systems being used for the purpose of ensuring national stability is a relatively novel concept, as is the idea of millions of people of different ethnicity mixing together at the rate we see today.

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<sup>13</sup>I have deliberately omitted high schools on the grounds that high schools were extended as a means of reducing competition within labor markets.

<sup>14</sup>See *The Crowd: A Study of the Popular Mind* by Gustave Le Bon (1896)

# Closing Thoughts

## What is a Merit System?

If a student is raised to see k-12 as a gateway to opportunity instead of a restriction on his or her freedoms and an imposing force which acts against his or her communities culture<sup>15</sup>, such students are unlikely to be motivated to achieve what is the schools definition of success, and they will consequently experience potentially vast inequities in opportunities for scholarships and admittance for colleges. As previously mentioned in part II<sup>16</sup>, a similar argument can be applied to comprehensive exams for graduate students; some see these tests a true measure of merit while others see them as just another hoop to jump through – one which, after so many years of sacrifice, requires them to waste even more precious time out of their life to study the same standardized material which has already been covered (probably multiple times by this point) before beginning actual research.

Hence the first significant problem with constructing a merit system; people do not all agree on what merit is. To some merit is a simple matter of competence; how well can someone perform a given task. To another merit might be the individual effort, sacrifice, and adversity it took to get to a certain point. Merit could be considered to be a matter of affiliation, e.g. it is who they know/ are currently or have been affiliated with which gives them merit. Objectively speaking, the idea of experience which has been a defining facet of professional society ought to be categorized into one or a number of the previous categorizations. Then there is a person age which can be considered a form of merit, and this among the oldest and most natural delineators for deciding who is and who is not worthy of some position (especially management/ leadership positions). The question of age is of particular relevance because it is so easily related to the notion of inheritance; younger individuals typically inherit opportunities, knowledge, and things from older individuals.

But any merit system must to some extent oppose systems of inheritance, else it is not, by any reasonable definition, a system which is based on the merits of the individuals own efforts so much as it is their fortune. In the extreme case we have a system of slavery/ serfdom/ feudal hierarchies in which no matter how hard a person works or how skillful at a given task they become their social status and resources show no corresponding increase. Meanwhile, those who had the fortune of not inheriting (or devolving into) a state of servitude maintain land, property, and high social status regardless of their efforts and qualities. As discussed in my other essay *Reinventing Communalism* the notion of inheritance is of such fundamental importance to humans it has virtually shaped the societies we live in today.

To return to the example of standardized methods in education as a means of measuring merit, the inherent flaw of standardizing tests and placing rigid time limits on when they are taken as a method of measuring merit is that such approaches are also in effect measuring a students willingness to be deprived of both autonomy and creativity. Such qualities in a student I posit are things which are to a large extent probably inherited in some way or another during a child's upbringing, be it via their parents, others, or by environmental factors<sup>17</sup>. In either case student achievement is

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<sup>15</sup>either interpretation has truth to it.

<sup>16</sup>see page 34

<sup>17</sup>I'm no Sigmund Freud, and I lack the time to research this point, but I think it a reasonable assertion based off of my own observations and experiences.

highly correlated with a students upbringing<sup>18</sup> (e.g. home and family), and this fact alone tells us that overcoming rather than reinforcing systems of inheritance is something our educational system has largely failed at. Yet since the days of Horace Mann, this has not stopped proponents of education from flaunting it as being 'the great equalizer'.

At the other extreme, left to their own devices certain individuals will achieve high levels of specialized skills at a young age. In a job market which places a high value on specialized skill, this would create a significant gap between them and their peers who in turn have all the more incentive to stop enjoying their school days in favor of hunkering into their parents garage to develop some esoteric nerd skill.

The question of how to construct a 'good' merit system is not trivial. Were we to pursue the question farther it would lead to an increasingly broad conversation; how to simultaneously allow students to be free without creating vastly inequitable outcomes would require we think about the undeniable fact that merit [eventually] is expected to result in money and/ or enhanced social status. But in the thinking of Karl Marx and many others, "capital is a social relation". And so we (or at least I) would find ourselves (myself) contemplating some fairly deep or at least radical thoughts about how society would need to change so as to allow individual freedoms while still producing equitable outcomes. The answer I believe is to change the wording of the problem; replace 'equitable' with 'equilibrium'. But first lets also acknowledge that a merit system contradicts the notion of equal opportunity unless it A) somehow manages to custom tailor opportunities to the unique qualities of each individual or B) completely overcomes mechanisms of selective and unequal inheritance.

Some innovative possible ways of attempting to achieve A as well as why such methods have not been pursued have been discussed already. I will only clarify that simply shoving everyone into the same system is not the same as providing the same level of opportunity.

As for B, as discussed in my other essay *Reinventing Communalism* what was perhaps the primary incentive for the establishment of private property, monogamy, and the nuclear family – the most significant things we think of when we refer to 'home' – was to affect a conversion from tribal systems of inheritance to inheritance by direct descent. We will refer to this as the domestic system of inheritance. As already alluded to, tangible forms of property are only one form which inheritance can take. The compartmentalization of families has the effect of largely limiting the influences which a child is exposed to as well. Being exposed to a number of school teachers whose curriculum is mostly restricted to standardized material does not go far to negate the unequal and selective effects of the domestic system of inheritance.

In some way or another the role of most every mediating institutions can be boiled down to this; to provide places for communalism to grow. Schools *do* accomplish this, albeit in a limited form; a progressive form. By 'progressive form' [of communalism] I mean a culture which is opposed to a traditional culture – a thing which is typically defined by researchers as a culture in which habits and cultural customs are successfully transmitted from one generation to the next. So a progressive culture contrasts to a traditional one in the sense that, for example, in progressive culture generations typically try to distinguish themselves from their parents. By socializing students only amongst those of a similar age while simultaneously restricting the activities and curriculum (and

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<sup>18</sup>this is another point I wish I had done a better job of researching when I originally wrote this essay, but it does not take much effort to verify this claim in the literature (i.e. google it).

by extension the influence) of teachers, schools become breeding grounds for progressive culture; kids follow kids; whatever happens to be popular substitutes for what in some other time and place might have been traditional; rather than learning social habits/ forms of knowledge which are not so easily written into textbooks from those before them, everyone is trying to impress someone – everyone – else.

With how sparingly educational systems grant students autonomy in both their selection and execution of a given task, it can hardly be argued such systems are designed to serve those who have had to figure things out for themselves from an early age and who have come to rely on such autonomy out of necessity. It is a slap in the face to those who did not inherit much but adversity to simultaneously stifle true communalism while also restricting their autonomy. The former ensures the intangible forms of inheritance remain a things the individual must learn or otherwise acquire for themselves. The latter only makes it more difficult for them to do so.

## **Catastrophe and Change**

With the experience of a global pandemic [Covid] now in hindsight, one salient lesson of these past years might be this; on a collective scale societies do not change [quickly] unless and until people are forced to change them. One lesson which history books have to teach is that on average, people do not like security; they *love* it – a thing any prospective revolutionary must give due respect. In the words of influential historian and economic analyst Karl Polyani, "too much change, too fast, history shows is hardly ever a good thing."

The irony of this essay is that it has been an attempt to question in the most professional way possible the foundations of what Harold Perkin called 'professional society'. But for all its flaws it must still be acknowledged that *some* merit system is better than none, for when a society lacks a merit system then systems of labor can easily devolve into slavery. Imagine a world in which no matter how hard you work, what your sacrifice you make for however long, or how good you are at a given task, your prospects for bettering your life remain slim to none. This would in my opinion be one working definition of a system of mere servitude.

Having done more than my fair share of grossly underpaid and overworked hard labor jobs as I clawed my way through so many years of education – most years of which were spent living in ~ 100 square-foot and sometimes bug infested SRO's and at one point even living outside – I love the idea of being a professional. I love having a craft which is both intrinsically and extrinsically rewarding. I love having the trust and respect of others. Perhaps more than anything though, I love feeling as though I earned all of these things.

And so we ought to consider the opposite extreme of servile labor systems which would be labor systems that get so carried away with the notion of professionalizing every task such that 'experience' becomes a status symbol more than a reflection of the sacrifice, effort, and skill. In this case simply knowing the right people or having just the right personality or looks might be enough to get you in the door, and once your in your experience only accumulates making you more and more deserving of merit as time passes. Such a system could not rightfully be called an actual merit system. It would instead be more similar to the classist systems of inheritance of feudal ages – the very thing which guilds once claimed to provide a counterbalance against. We could go so far as to argue that,

considering how characterized higher education has become by student debt, and how the notion of debt has throughout history been so intimately tied to the notion of slavery, higher educational guild systems are inching closer to being institutions which reintroduce servile forms of labor than they are institutional bulwarks against it. Such a case would not actually be that much of a stretch when we also consider the raw amount of time which a typical graduate student spends performing labor which is not paid; the case would only require we acknowledge that studying is in fact more appropriately considered to be labor when its direction and content are under the strict control of the institution/ supervisor [teacher] – a thing which makes the act of studying more than an act of self-determined learning and self-discovery; it makes studying more akin to a job.

In either case, whether it be a result of a want for safety and security or a simple matter of human inertia, it is very difficult to change entire societal systems in a short order of time. Catastrophe might be the exception.

There is no logistical reason, for example, why much of work and school could not have been mobilized before Corona virus happened. Though the primary purpose of k-12 (or at least elementary and junior high schools<sup>19</sup>) is to facilitate shared culture as a means to national stability, and this requires some degree of face-to-face group contact, this fact alone does not explain why more flexible and intelligent middle ground options which might even be more effective at achieving such aims have gone largely unexplored or have been deliberately shoved under the rug. More than just a means to facilitate a shared culture, the purpose of six-hour long days of unidirectional lecturing was more of a means to weaning individuals onto notions of living by the clock, receiving instructions from a superior, and working in an assembly line fashion towards a goal in unison with others – essentially warehousing people – as an age of industry required. But there is no a priori reason why schools could not have achieved the national purpose of education via other models, and even industry has evolved more than today's k-12 educational systems – a thing which makes them seem even more outdated.

Yet we stick to it. Domestic society has a way of locking us into its rigid and unnatural norms, and short of catastrophe humans haven't seemed to develop much of an effective means of breaking themselves out of this inertial trap. The evolution (or lack thereof) of educational systems has demonstrated this facet of collective human behavior fairly well.

And for higher education the trend is even more clear. Save for the fact that universities were used for military purposes during the Civil War, by no reasonable argument can it be said that the purpose of higher education was ever to provide national social/cultural stability. There is no good reason that the act of getting a college degree could not have been since at least the time of the internet or CD-ROM's if not from the time of the inception of education itself something more like a drivers test in the sense that one studies on their own time and at their own pace and simply takes a qualifying examination when ready – consulting teachers only when needed. To say such alternatives are implausible or would give rise to quackery is to say humans are essentially too stupid to condition/ educate themselves, and this would sort of contradict the purpose of having educational systems in the first place. In either case, society has clearly managed to find a more intelligent middle ground for the case of drivers licensing.

Rather than evolve to suit the times, in terms of a liberal education universities have actually

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<sup>19</sup>again, high schools in part evolved as a means of keeping young workers out of the workforce to mitigate competition.

devolved. Furthermore, the domestic conditioning of people<sup>20</sup> has led to an over-reliance on mediating institutions such as schools, both as a means for generating social capital and as a means of conditioning the individual with life-experiences. What emerges is then a carefully crafted product that is capable of digesting information and navigating social norms but not entirely interested in shaping mediating institutions themselves.

To be clear, here it has been argued that the coupling of federal aid to college accreditation has been the primary source of inefficiency and a lack of consumer leverage in higher education, and that this more than any other facet of the higher educational system has stalled its potential evolution. In a more free system graduate students would at least be eligible to take out federal loans to pursue their own independent study, perhaps only consulting with some accredited body to give guidance on what is an entirely personal investment.

But to say that 'societies/people [collectively speaking] don't change until they are forced to' here is intended more as a rule of thumb – one which is probably more accurately stated as 'people [collectively] resist change until they *must* change'. This is a facet of human group behavior which has dangerous implications as it would necessarily at some point or another lead someone to the conclusion that one must *create* catastrophe in order to overcome the passivity and inflexibility of a collective mass of people.

At least this would seem to be the conclusion some people have reached, particularly with regard to education.

As noted by Antoni Verger, Clara Fontdevila, and Adrian Zancajo in their book *Privatization of Education: A Political Economy of Global Education Reform* (2016), "Catastrophe works as a material catalyst of change, opening up opportunities for privatization advocates to question the current state of education. The catastrophe also makes education stakeholders more receptive to the messages of privatization advocates. Due to the destruction and the sense of urgency that catastrophes generate, policymakers and other educational actors are more open to considering drastic policy changes, especially if such changes are framed and perceived as inherent to the reconstruction process." [26]. The authors go on to describe privatization reforms which had occurred in the aftermath of the earthquake in Haiti (2010), Hurricane Katrina (2005). and the War between the U.S. and Iraq (2003-2011). In the case of Iraq,

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<sup>20</sup>with use of the term 'domestic' I aim to relate the point here to the things discussed in my other essay *Reinventing Communalism*.



“ ...The Iraqi case reflects the “smash and grab” idea (Saltman, 2007) lying behind the path toward education privatization via catastrophe. The education infrastructure of the country was first devastated through sanctions and conflict; afterward, two simultaneous processes of privatization and decentralization were introduced. The privatization agenda, hence, was advanced through consecutive stages of military destruction and reconstruction that, according to Saltman (2006), were embedded within a broader process of neocolonization in the country.

...The “promotion of democracy” frame behind CIA’s projects in Iraq, but also in other parts of the world affected by conflict and war, represented the intervention as a matter of progressive encouragement of civic participation, individual rights, and constitutional rule of law. Nonetheless, the underlying objective of the intervention was the encouragement of a free-market liberal democracy, with an education system modeled on privatization ideas originating from the United States (Saltman, 2006, 2007). ”

—A. Verger et al., *Privatization of Education: A Political Economy of Global Education Reform*

In addition to catastrophe being an opportunity for educational reform, it can also be incentive. Writing on the case of the Chilean Revolution of 1859, Gustina Paglayan has as his thesis statement, “...instances of widespread internal political disorder that constituted a threat to political elites’ authority, such as peasant revolts and civil wars, were a key historical factor that prompted elites to turn to mass primary schooling as a means to contain future political instability—not by buying off rebels through redistribution, but by using schools to instill values of order, obedience, and respect for the rule of law that, elites hoped, would help prevent future mass rebellions against the state’s authority.”[56].

Noting that education – particularly higher education – has come to play a major role in shaping fields of work today, the relation between catastrophe and labor ought to be considered as workers/business owners also have the capacity to opportunistically gain – maybe even invoke – catastrophe to achieve a certain outcome.

In ‘Forces of Labor’ Beverley Silver correlates most every major international conflict to labor conflicts *within* a given nation, i.e. wars between countries are correlated to labor conflicts within one – possibly both – of the involved countries, but these labor conflicts have little to nothing to do with the country being fought. At the heart of these internal labor conflicts are usually changes to the labor market which have or which threaten to upset the current working order. In the event that the labor conflict cannot be resolved internally, it is found that soon to follow the country (or countries) which could not resolve its own internal dispute will seemingly lose its capacity to ‘play it cool’ with other nations – perhaps going so far as to find an excuse just to go to war with them. It is comparable to a man who got angry because he lost his job so he then goes outside and finds some ad-hoc excuse to start a brawl with a group of people across the street. A better analogy might be a business executive who feared certain changes would undermine his position within his company so he created some sort of conflict between his company and some other as a means of detracting from whatever prospective changes his company had originally been considering. Beverly notes that this hypothesized scenario is sort of an unwritten law in social sciences – one which has been speculated on to a great extent, but which is of course difficult to substantiate.

Obviously there are numerous agendas at play in education. Equally obvious is that catastrophe

presents an opportunity for change to occur. The question worth entertaining is whether such opportunism ought to be resisted. To this end, firstly, it is worth noting that if ever there was a species which did not capitalize on such opportunities when mother nature presented them in an effort to diversify and adapt, then this species likely is no longer in existence. But change can of course go both ways.

While the idea of a democracy presents a theoretical alternative to forcing catastrophe as a means to ameliorate differences between people and facilitate collective decision-making, serious questions begin to arise when it becomes clear that peoples natural mechanisms for developing a consensus have been obstructed, either because society has become too large such that these natural mechanisms are no longer possible, or because such mechanisms have come to be manipulated as they have been in the case of education. Catastrophe then becomes one of if not the only way to affect change. However distasteful the idea of exploiting catastrophe may be, it should also be remembered that there is such a thing as exploiting times of peace. In the case of education, this notion is of particular relevance.

# Author's Note: The Superhero Complex

We've seen in the above essay that guilds tend to weaponize the concept of serving the public good. But what is 'good'? The biblical figure Jesus once said, "no one is good". Not to be religious, but the proverb is of interest for the simple fact that it has been transmitted for millenia, and this fact alone is reason to suspect there is wisdom in it. There is however, at least two ways to interpret it. One is that a good does exist, only we feeble humans are incapable of touching it. The other is that 'good' simply does not exist.

I prefer the latter interpretation. Here is why.

Let us consider a thing that has by now been essentially stereotyped into being something that is 'good' – so much so it is often used to define what is good. This thing is the private home. A home allows us to raise our families, and this is, from the families perspective, likely to be a 'good' thing. Overlooking legitimate arguments that society allowing itself to organize around familial lines has in fact caused problems that are as systemic as they are unsustainable (see my other essay *Reinventing Communalism*) let us instead perceive this from a more fundamental, objective, and easily described point of view; that of insects.

In the construction of a single home it is likely that at least one if not numerous insect colonies are essentially decimated. Imagine for a moment bodies strewn about; women, children, and humble laborers alike all torn limb from limb or buried or drowned in the most 'inhumane' fashion. From the perspective of these creatures what just occurred was apocalyptic. But to the human family it is 'good'.

So we see that in order to define what is good we must first take a subjective point of view.

Secondly, just as one cannot define light without defining darkness, one would be hard pressed to define what is good without defining what is evil. Likewise, one seemingly cannot define a superhero who 'serves the public good' without defining a super-villain who opposes it. Conveniently, one must first take it upon themselves to define what is 'good' before they can serve it or fight those who oppose it.

It is interesting to trace the origins of 'goodness' from a historical perspective. Admittedly, my readings on this specific subject are lacking, so the point of this note is that this all will be the object of future research for me. However, at a glance the notion of 'goodness' seems to be mostly lacking in most parts of the worlds history outside of Europe, and even here it only really became prevalent around the time of Charlemagne. As discussed in my other essay, it was from this time forward that, in an effort to evangelize the activities of the church, numerous things/ people/ animals were vilified; wolves transformed into werewolves; witches went from those who drew magic powers from the earth to those who drew magical powers from the devil; fairies went from mythical tricksters to kidnappers of children; in an effort to dismantle the cult of the bear, the bear too was vilified along with anything that too much resembled a human in that it was capable of walking on two limbs.

There does seem to be a parallel between the development of westernized concepts of 'goodness' and 'freedom'. On one hand there arose guilds who took it upon themselves to define and then monopolize the concept of serving the public good (or just public service). On the other hand among the merchant and peasant classes arose the notions of freedom; for peasants it was a long and bloody

struggle to free themselves from the bonds of serfdom; for merchants it was a battle to legitimize the notion of a free-market (or free trade).

Stepping forward to the nineteenth and twentieth centuries, the notion of public good increasingly was used as a means to professionalize public service. It also has been used by unions (e.g. 'public works' projects). The ultimate example however, is the military; the notion of self-sacrifice puts the concept of selflessness and public service or 'public good' to the ultimate test. There is much to be said about this. Ancient vikings for example, held that to die in battle was a privilege; war to them was a means to escape the trappings of the world. This is somewhat in contrast to military service today which, since some time after Vietnam has become an appreciable means for individuals to obtain personal benefits, e.g. economic benefits and the social prestige of having served their country. Simultaneously, entrance to the military has become more selective; whereas in the days of world war II the military may have mostly been concerned about recruiting those who were able and willing to fight, today they are concerned with the specific personality and motives of the individual. All of these assertions remain to be substantiated. Here I am simply suggesting the direction I will take, which is to argue again that public service is being professionalized.

Though I've yet to research the superhero complex overly much, at a glance the first thing I find is that a surprising number of arsonists confess to having started a fire just so there was something in need of saving.

At the other end of the spectrum, the construction of a 'good' may serve some organizational purpose, much as fiction does. For example 'pick yourself up by your bootstraps', though it is against the laws of physics, caused people to believe there was a merit system and that their efforts would be rewarded. Santa clause is a myth, but believing in it brings the nuclear family together. Likewise, constructing a 'good' to be believed in may cause people to work together so that they are able to attain worker bargaining power. Without such a mechanism, it can be argued that peoples tendency to compete overcomes them, and this is how working class laborers loose bargaining power. Centuries of experience of learning to overcome feudal structures may have made this argument especially relevant to European immigrants of the seventeenth through the nineteenth centuries.