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Crossroads of Higher Education in Troubled Times Facing the Future of Work and the Subjective Well-Being of Professionals in Latin America

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Abstract

The effects of massification, fragmentation and segmentation in higher education have been exacerbated by the state of current affairs. Latin America has been especially shaken, due to e.g., political changes resulting from massive expressions of social discontent following 2019; or the arrival of COVID-19, its interruption of the quotidian, and its impetus for technology to burst into professional work. In this context, three major crossroads for higher education – resulting from bibliographical and document analysis and integration – are presented in the paper, “Rethinking undergraduate training in social sciences from the imaginaries of the future about professional work”. The paper discusses development in the current context, the future of professional work, and subjective well-being in professionals. To face these challenges, the conclusions propose the exercise of prognostic intelligence as an alternative. Prognostic intelligence is a professional skill that can be developed during higher education. Its practice would eschew the presentism characteristic of our turbulent times in favor of expanding the possibilities of outlining the future of higher education on the basis of relevance, quality, and stability.

Keywords: higher education in complex times, future of work professional, subjective professional well-being, Latin America

1. Introduction

The effects of massification, fragmentation, and segmentation of higher education have been exacerbated by convulsions, be these from COVID-19, social uprisings and political transformations in some Latin American countries, forcible technological disruptions in professional work, or any of the many looming changes in the future of professional work. A sense of existential insecurity, a fear of the future, has come to light for professionals and represents a crossroads in higher education that must be addressed in order to maintain its relevance, quality and stability.

First, higher education is going through massification processes, evidenced by increased gross enrollment rate – worldwide, from 19% in 2000, to 38% in 2018 [1].

In Latin America, this phenomenon began in the 1990s with the liberalization of the supply of professional training and the novel coexistence of public and private higher education regulated by the market and competition. This resulted in increased coverage in Latin America and the Caribbean by 29 percentage points between 2000 and 2018, compared to the 22 points in Europe and North America and 30 in East and Sub-East Asia during the same period [1]. The Chilean case has become a paradigm in the liberalization of higher education, leading fragmentation in many professions, reserving university status only for some and relegating still others to professional institutes (IP) – the latter of which grant professional degrees, but not bachelor's. Furthermore, specialized training offered at technical training centers (*centros de formación técnica*, CFT) around operational professions has also increased. As a result, the expansion of higher education in Latin America has developed in a segmented manner. In other words, people from certain socioeconomic strata have priority access to certain types of institutions, and, therefore, occupy work positions that are also differentiated with respect to the material and symbolic valuations of work tasks in the national socio-professional pyramid [2, 3]. Thus, the social inequalities that characterize the continent are also reproduced in this sense, calling into question the impact of “universal access to higher education” ([1]: 8) on development in these countries.

In various Latin American territories, higher education is aspirational to the middle socioeconomic strata; its contributions, however, to the personal and social development and progress is subject of sustained public debates regarding its definition as a universal human right or, on the contrary, as a consumer good. This is further occurring in the midst of the “structural de-qualification of qualifications” ([4]: 40), in which professionals are “destined to obtain from their qualifications less than what the preceding generation would have obtained from them”. I have previously argued this causes a kind of collective disillusionment [2, 3], which “results from the structural mismatch between aspirations and opportunities” ([4]: 137). That is to say, that there is a mismatch between the social identity that higher education seems to promise – the one it proposes on a provisional basis – and the social identity it actually offers as part of the labor market [4].

Thus the crossroads – as above, from the massification, fragmentation, and segmentation of higher education, the future of professional work, and the structural de-qualification of degrees – are further exacerbated by the presence of COVID-19 and the convulsions of our times. We discuss some of these in this text, and conclude with a proposal to face them and outline the future of higher education.

2. First crossroads: higher education in turbulent times

Recent years have witnessed increased demonstrations of social discontent in different countries around the world. Even though it maintains the highest Human Development Index in Latin America and the Caribbean – and even though its development model has been praised for the success of its macroeconomic figures – Chile was no exception. In 2019, days of massive social protest were unleashed here and subsequently in Colombia, Peru and Argentina. These social movements were united by discontent among broad sectors of the population against the prevailing development model. Macroeconomic success was not seen in the microeconomy, nor in the subjective wellbeing of the population – which, even when not resulting in social revolts elsewhere, still exists throughout the continent.

The universalization of quality higher education as a human right became a vanguard banner in such self-convened social movements. In the case of Chile, a plebiscite approved the drafting a new constitution to govern the destinies of

the Republic after 2022. Here, higher education and its public-private character, its social or market grounding, and its financing are central issues of the current debate. However, the long days of social protest were abruptly silenced by the irruption of the SARS-CoV-2 coronavirus, which altered routines toward the troublesome.

COVID-19 tested the massification of higher education in Latin America generally. During these times, the sector enjoyed greater access – even compared to other, most economically disadvantaged sectors – with the technological advantages from previous online professional training. However, fully implemented as an emergency measure, the structural gaps in poverty levels, geographical dispersion, and access to the Internet were exposed. Likewise (and affecting the self, and therefore, expectations, decisions, and understandings of professional training): social capital, or the added value that someone obtains from mutually recognized relationships and connections [4]; cultural capital, the power that each person has in the form of a set of intellectual qualifications produced through the family and the school system [4]; and symbolic capital, the characteristics of a person, which are perceived by other social agents, that allow them to know him/her, recognize him/her and grant him/her a certain value [4]. Differentiated cultural, social, and symbolic capitals are reflected in the segmentation of higher education: students from lower socioeconomic strata attend universities with limited economic resources – or, by borrowing, attend those characterized by their massiveness – while those from middle and high strata attend universities with greater resources and selectivity. This segmentation is closely linked to the fragmentation of higher education, confluences of social, cultural, symbolic capitals, as well as horizons of possibilities for choice of universities, professional institutes or technical training centers. Manifest moreover with online education during COVID-19, structural gaps continue to affect access to and effectiveness of higher education [5] – even if some parts of Latin America have made progress toward free access for the most economically disadvantaged.

During this time, there has been discussion regarding teaching and its challenges in the pandemic [1, 6]. However, little has been said about how the pandemic has put tension on the autonomous learning of professionals in training. This ability, which is mediated by their cultural, social and symbolic capitals, is directly related to the arguments developed by students to sustain a conceptualization of higher education as either consumer good or human right, and therefore also affects their processes of self-learning. Under a premise of market education, where students are customers who consume a service toward the ultimate goal of obtaining a professional degree as soon as possible, any tendency toward autonomous learning would be lower. Here, and so as not to delay the training process, demands for greater tutelage – to overcome anxieties and insecurities derived from the need to successfully overcome the challenges offered by professional training – would be greater. Meanwhile, a conception of education as a human right – underpinned by personal development in accordance with humanistic, social thinking, and central to the advancement of nations and their citizens – would therefore ideally be more inclined to self-learning, a “learning to learn”, where error would be part of learning, of a process of rest and decanting, which in no case would mean extending the deadlines for timely graduation.

The development of self-learning skills is acquired throughout all educational levels until becoming a professional. However, in Latin America in general, these educational levels are also fragmented, passing on to the next level the responsibility of correcting the gaps that remain throughout the educational trajectories. Thus, upon arrival at higher education, students usually present difficulties in reading and writing; comprehension and interpretation of texts; logical reasoning; and oral and written expression [7, 8], which is directly related to their social, cultural and

symbolic capitals. This hinders self-learning, and therefore has hindered the progress of online education in times of pandemic, tensioning the opportunities offered by the various technologies to expand knowledge with the actual use of these possibilities by the student body. Thus, the development of skills for autonomous learning is a prerequisite to speak of online higher education, in any of its modalities, if what we want is the achievement of learning for life and not only obtaining a professional degree that favors competition in the socio-professional market.

The irruption of the SARS-CoV-2 coronavirus has made it clear that autonomous learning “represents the navigation chart that students will have in the coming years to achieve their educational objectives” ([6]: 67). The development of this skill is central, if we consider that the ability to achieve ubiquitous learning is an essential tool for future professional work. Ubiquitous learning is that which occurs anywhere and at any time, e.g., via a cell phone or other devices close to people [9, 10] that takes advantage of the universality of the internet as an additional media dimension through which we can perceive the world and provide opportunities for new learning [11]. Hence the relevance of self-learning: universities will have to discuss whether they “increasingly transfer e-learning solutions or prolong face-to-face learning scenarios to mobile devices” ([12]: 9). This is in line with the changes that universities will have to face in the future [6], where, after the return of face-to-face teaching, it will be necessary to calibrate mistakes and successes of online academic work in times of COVID-19 [6, 13, 14] and to discuss the implications of scaling digitization, hybridization and ubiquitous learning. To achieve this, practical and specific digital competencies are increasingly required, in addition to those of abstraction, reasoning, synthesis and critical thinking [10, 15]. This supports the need to expand the social, cultural and symbolic capitals of higher education students, where the use of technologies represents an effective means for the opening of cultural and social worlds and imaginaries, thus enhancing the development of such skills. In this sense, the obligatory nature of online education, as a result of the pandemic, has opened a possibility of experimentation and innovation in opening everyday worlds and expanding the cultural, social and symbolic capitals of students, which, while desirable as early as possible, should at least be present in higher education.

The return to face-to-face professional training after the pandemic is a necessity for the achievement of quality higher education, which integrates the dimension of “learning by doing”, one of the greatest human learning capacities. However, the development of online classes in times of COVID-19 has shown that the use of communication and information technologies of various kinds allow students to learn and discuss different economic, social, cultural and political realities; increases their abstraction, reasoning, synthesis and critical thinking skills; and expands cultural, social, and symbolic capitals. In this sense, the permanent incorporation of various online platforms into work – which has allowed instant connectivity with other people from different parts of the world, as well as to know, reflect and discuss different realities, subjectivities, cultures and conditions – is a need that has been evidenced during the period of teaching in pandemic.

Thus, the crossroads between the technological requirements derived from the development of online higher education, its massification, fragmentation and segmentation, and its more clear manifestation during the pandemic calls for the promotion of educational policies that consider the living conditions of the less favored segments [6]; that promote ubiquitous self-learning; that take into account the experiences lived in times of COVID-19, in which collaborative work networks have been strengthened and expanded by the use of various electronic platforms; and the narrowed geographical horizons of professional work. The development of such policies requires visionary strategies to face the coming changes in education

and the future of professional work, reconceptualizing the university in its educational models, and in the ways of dealing with research, dissemination of knowledge and linkage with their environments, which are also expanding.

3. Second crossroads: future of professional work

Although the future of humanity has been analyzed on the basis of various areas and concerns, its themes tend to be related to the economic basis of societies and their modes of political organization. The intersections between these two dimensions originate different ideas about how future societies will be, imagining them as an egalitarian world with abundance; one with abundance, but with a hierarchical order; on the contrary, as an egalitarian world, but with scarcity; or as a hierarchical one, also with scarcity [16]. Evidently, all these possibilities harbor ideological nuances and different possibilities, with some scenarios more favorable than others. In all these analyses, paid work continues to be a permanent element and articulator of everyday life, even when there is consensus regarding the present and future transformations of the world of work.

So far, analyses on the future of paid work have focused mainly on two perspectives. One that predicts the gradual obsolescence of humanity in the world of work, and the other that suggests the complementarity between human labor and that of artificial intelligence. Those who predict obsolescence of humanity in the world of work assume that rapid technological evolution will gradually replace people, even in those tasks currently perceived as exclusively human because they involve abstract thinking and relational skills. According to such approaches, these capabilities could be developed by technological devices in which the thinking mechanisms of an average human being have been developed [17]. Therefore, higher education should be focused on preparing professionals to provide such devices with these capabilities. According to this view, in the future some professions will be more relevant than others, reordering the socio-professional pyramid with which different countries value them. On the other hand, those who propose that technological progress will substitute only some labor functions argue that human skills related to originality, fluency of ideas, deductive reasoning, sensitivity to problems, or critical mentality are not replaceable by artificial intelligence and will be complemented by the capabilities that have been transferred to it, increasing labor productivity [18]. There will be, therefore, no human obsolescence in the world of work, but rather complementarity between human and artificial intelligence. Both positions recognize that the automation of some labor functions will require the development of new human skills at work.

Transformations in the world of work will also be reflected in professional work, and there are three different positions. One of them corresponds to the “continuity thesis” [19, 20], which argues that professionals have social, cultural and symbolic capitals that will allow them to adapt to the changing world of work and preserve their expert status using multidisciplinary perspectives to contribute knowledge to a highly complex and rapidly changing environment. In contrast to this, the advent of a post-professional society [21–24] in an internet-based digital society would cause profound changes in the distribution of knowledge in the population, which would increasingly rely on practical knowledge, available online, to solve everyday situations. Thus, increasingly informed people would require less and less professional services, since the development of technological devices capable of self-operation – or that do not require specialists – would be on the rise. A third perspective suggests that there is not sufficient background to argue that professional work will be negatively affected in the future by the inclusion of technologies in the world of

work, and so the theses of continuity and the post-professional society are merely dystopian or retrotopian lucubrations. That is, in the sense proposed by Bauman [25], retrotopias consist of the yearning to improve the current human situation, transferring past potentialities to the present, in a nostalgic vision for a past valued for its presumed stability and also for its supposed reliability [25]. However, even if there are not enough arguments to support one or the other position, certain current trends in professional work may continue or be exacerbated in the future. Such propensities correspond to the fact that: 1) labor sources may demand that professionals provide more services, with fewer resources at their disposal; 2) demand for new competencies beyond the traditional boundaries of the professions, therefore, may expand their professional jurisdictions; 3) the standardization of possible ways of performing certain tasks may not necessarily consider contextual redesigns; 4) the decomposition of professional work into different parts may be handled by different types of professionals, by non-professionals, or become automated; and 5) the routinization of professional labors, which until now had been particularly complex, may become commonplace [26, 27].

So, in any case, there is consensus that professional work will undergo changes in the future; therefore, higher education should focus on creating professional profiles capable of adapting to the new times. Whether we nominate them as symbolic analysts [28], self-programmable professionals [29], knowledge workers [30], or “knowmads” [31] education should prepare professionals that are mobile; that, more than people with disciplinary ascriptions or institutions, are nodes of a network, and thus add value to their jobs; and that are able to innovate, to handle sophisticated information, and to transfer knowledge [32].

Given the advance of technologies in professional tasks, all the changes in the future of professional work are at a crossroads with the implications that the massification, fragmentation and segmentation of higher education in Latin America have had on choices and the type of education received.

On the one hand, the massification of higher education represents an opportunity to raise the levels of knowledge available to citizens in general, broadening possibilities for social influence and opening perspectives for making conscious and informed choices. The fact that many more people have access to higher education should mean greater opportunities for personal development as well as for the environments in which they live. However, such massification in Latin America is associated with the fragmentation and segmentation of higher education.

The fragmentation of higher education entails a relevant tension for professional training – the most operative dimensions of the fragmented professions have been transferred to the education offered in professional institutes; and, at the same time, particularities of this latter type of training are transferred to the education offered in technical training centers. Although not in all cases, the same business consortia own both universities and professional institutes and technical training centers; thus, students follow a long ascending path from obtaining a technical degree, through a professional degree, to a bachelor’s degree in a university, culminating an education that in total has been equivalent in time, and more costly in economic resources, than what is involved in the study of a university profession that includes a professional degree and the corresponding bachelor’s degree. This type of educational path is usually followed by people from the most disadvantaged socioeconomic strata, who have seen higher education as a possibility of social mobility, and who have had access through debt, or by studying in evening classes after their working days, as a way of paying for their studies. However, the segmentation of higher education in Latin America operates at all educational levels, so there is no certainty as to the returns that such educational trajectories can bring to

those who have followed them. Hence, the transfer of the most operational tasks to artificial intelligence devices represents a crossroads for higher education.

The advance of artificial intelligence in the development of the most operative professional tasks raises questions regarding the future of those who opt for higher education, referring not only to whether artificial intelligence will replace the work of those who have been trained in professional institutes, and whether it will also replace that of those who have studied in technical training centers. It also raises the question of whether this would mean the end of the fragmentation of higher education, and thus exacerbate competition for jobs by increasing “credentialism”, understood as the availability in the labor market of an increasing number of applicants with higher and higher certifications, which causes a “sort of pyramid of credentials” ([33]: 232). In other words, as artificial intelligence replaces the most operative professional tasks, in order to be more competitive in the labor market, professionals would have to climb to higher and higher degrees, leaving professional degrees at the bottom of the pyramid and doctorates at the top.

Whatever the perspective with which the future of professional work is approached, the massification, fragmentation and segmentation of higher education, and the five current trends of professional work enunciated by Susskind and Susskind [26, 27] pointed out previously, evidence the crossroads of higher education in the face of the future of professional work, and therefore, the need for visionary strategies that allow facing the coming changes in education and in the future of professional work.

4. Third crossroads: subjective well-being of professionals

On the basis that subjectivity is the process through which people “construct an image of themselves, of others and of the world in the context of their social experiences” ([34]: 16), and considering that this sphere is formed by their emotions, images, perceptions, desires, motivations and evaluations among other elements [3], and that each historical moment proposes or prescribes to individuals elements to fix their subjectivity, preserve it or transform it on account of a certain number of purposes, due to the relations of mastery of oneself, over oneself, or of self-knowledge, which produces a type of mentality congruent with the existing cultural conditions [35], it is possible to sustain the existence of a crossroads between the “structural de-qualification of qualifications” ([4]: 40), the subjective well-being of professionals, and the sense of existential insecurity among those who are training as professionals, expressed as fear of the future.

The de-qualification of degrees is considered structural, because it does not depend only on the quality and pertinence of higher education, and on the rigorosity with which professionals develop their work, but is rather fundamentally influenced by the impacts of the massification, fragmentation and segmentation of higher education on the social, cultural and economic “closures” of each profession in the territories in which they are developed. Social closure is “the union of the ‘economic’ closure in a competitive labor market and the ‘cultural’ closure of a group for the appropriation of legitimate knowledge: one and the other are the result of the professional strategy that the same actors use to achieve it” ([36]: 219). Thus, social closure refers to “the degree to which professional collectivities try to regulate, in their favor, market conditions by limiting access to it by a restricted group of potential competitors” ([36]: 53). Likewise, cultural closure corresponds to the “recognition of a legitimate acquired knowledge, without which professional practice would be impossible and which implies, therefore, a cultural closure of

certain professional groups to those who cannot certify the possession of such knowledge” ([36]: 219).

In the scenario in which higher education is currently developing in Latin America, university degrees have undergone processes of structural de-qualification, which, as has been pointed out, refers to the fact that the current cohorts of professionals seem to obtain, from the exercise of their professions, fewer prerogatives than those of the generations that preceded them. Although this phenomenon has multiple dimensions, one of its edges can be observed in the evolution of remuneration obtained by those who practice in Chile. This is especially so among some professions that have been more involved in direct attention to people in the context of COVID-19, such as those linked to direct social intervention, that is, face to face with the people who receive their work; where anthropology, psychology, sociology, social work, and risk prevention engineering; and professions in the field of health, such as nursing, medicine, and medical technology. The following **Figure 1** shows the evolution over the last five years of the average salaries obtained by this type of professionals.

Although Chile had shown economic and social stability until October 2019, when social protests began – and although these measurements were taken before COVID-19 affected employment – all these professions were already experiencing a gradual decline in their economic income, which reflects a dimension of their structural de-qualification. In the social sciences, this downward trend in professional income is compounded by the hybridity of the boundaries in the labor practice, in that, regardless of the type of degree obtained, these professionals share jurisdictions by performing equivalent tasks. Therefore, the cultural boundaries of anthropology, social or community psychology, sociology and social work are becoming increasingly blurred, tending toward interdisciplinarity, which, given the complexity of social issues, may be considered a strength in accordance with current trends in professional knowledge. However, this may also negatively affect the subjective well-being of those students who entered these careers with a different imaginary, closer to the traditional ethos of these professions, which corresponds to what is usually transmitted by the official media through which information

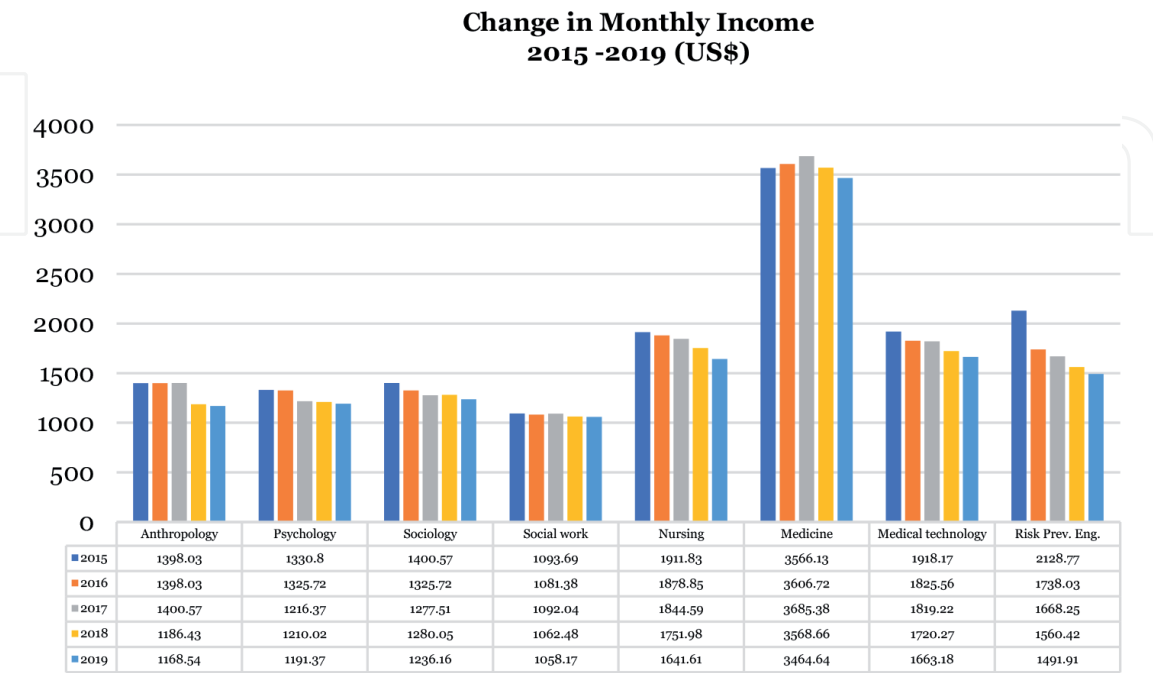


Figure 1.
Source: Prepared by the authors based on data published by the Chilean Ministry of Education, year 2021.En: www.mifuturo.cl.

concerning vocational orientation is disseminated. Furthermore, all these professions experience the processes of massification and fragmentation that characterize higher education in Latin America today. Indeed, segmentation is evidenced by the fact that medicine is the only one of these professions whose students come mostly from private paid secondary education, while the other careers include students coming from state-subsidized and family co-paying establishments. Meanwhile, those who graduate from public secondary schools study these professions in a smaller proportion, tending rather to continue studies in professional institutes or technical training centers.

Considering that, even in Latin America, the idea persists that obtaining a university degree entails a better position and social valuation with respect to non-professionals – and more favorable opportunities for labor insertion and progress, which is reinforced if we consider that, for example in Chile, the minimum monthly legal income for workers between 18 and 65 years of age is US\$ 427.53, which is well below the professional monthly income – then it could be argued that the structural de-qualification of qualifications may consist of a process of rearrangement of the socio-professional pyramid in each country toward social equality in fulfillment of this longing so widely nested in Latin American cultures. It could also mean a process of opening toward the democratization of knowledge, which may be reflected in the expansion of the social, cultural and economic closures of the professions, whose hybrid jurisdictions, and therefore the juxtaposition of professional tasks, has been demonstrated. However, given the transformations in the world of work, increasingly tending toward economic precariousness, and the competition between professionals in the same area, rather than with specific qualifications – which widens the range of applicants with more and more credentials, to the same job position, in addition to having to face the variables of gender and differentiated professional status – the structural disqualification of the professions may put higher education at a crossroads, since those who are being trained as professionals may experience a sense of insecurity, expressed as fear of the future, in the area of their subjective well-being as professionals.

The structural disqualification of the degrees may generate the feeling of an unfulfilled professional promise [37–39], to maintain what Bourdieu stated more than two decades ago in that professionals “deeply doubtful of their social identity, of their own image, by a school system and a social system that have paid them with vain promises, cannot restore their personal and social integrity in any other way, than by opposing to these verdicts a global rejection” ([4]: 7). This has become evident in the manifestations of social discontent that have taken place in different countries of the continent in recent years, in which the students who have opted for higher education, for a particular area, and for a specific profession, are faced with the publicly known idea in Latin America, regarding the structural disqualification of degrees; and therefore, the latent possibility of experiencing an unfulfilled professional promise. This is expressed in everyday life, in colloquial terms, with the label of “educated unemployed” or “cab driver with a university degree”. This situation produces insecurity experienced as fear or anxiety about the future of work, which is assumed to be indefinite and uncontrollable, since the professional future is seen as a multidimensionality that cannot be interpreted through traditional explanatory models, where work is a requisite for social integration, a space for citizen participation, and a driver of material progress.

Subjective well-being consists of the assessment that a person makes regarding his/her own life, in terms of the preponderance of positive feelings, over the negative ones referred to his/her life satisfaction [40, 41], in which are interrelated its hedonic components (constituted by the most frequent feelings, emotions and moods of a person) with its cognitive components (which represent the perceived

discrepancy between aspirations and achievements, whose evaluative range goes from the feeling of personal fulfillment to that of failure or frustration) [42–44].

In the case of professional subjective well-being, this is experienced in a job that oscillates between the disciplinary paradigm and the performance paradigm. In the disciplinary paradigm, work is delimited by a system of rules, including the automatism of customs in a given work space, and contemplates control, rules, prohibitions, and orientations for action [45]. In the performance paradigm, “projects, initiatives and motivation replace prohibition, mandate and law” ([45]: 17) replace the negative idea of prohibition with the affirmative of “being able to do”, being self-motivated and self-optimized with central professional skills. In both scenarios, professional subjective wellbeing is confronted with the structural disqualification of degrees, experienced by students as fear of future employment, becoming a crossroads for higher education, which opens up possibilities to develop new professional skills, or to resituate those that, given the current convulsive times, might have become obsolete.

5. Facing crossroads in charting the future of higher education

Throughout this text, three crossroads that higher education must face have been raised. The first referred to the access of the most disadvantaged economic sectors of the Latin American population to higher education, and the technological requirements derived from online professional training in times of pandemic. After living vast experiences of higher education in convulsive times – characterized by social protests and student strikes in the case of Latin America, and by the presence of the SARS-CoV-2 coronavirus throughout the world, which have prevented the development of face-to-face teaching – information and communication technologies have been given a preponderant place in online professional training. At the time of writing, which is characterized by the partial control of the pandemic and the initial opening of universities, it may be propitious to reevaluate what has been experienced and to define edges that will allow us to outline the future of higher education.

One of the key elements to unravel is the subjective disposition, and diversity [46, 47], of teachers and students to continue in the future with face-to-face, online or hybrid higher education modalities. Considering that, as previously pointed out, then the use of various technological tools in the development of face-to-face professional training is unavoidable, if the aim is to broaden the social, cultural and symbolic capitals of students, in order to develop their self-learning skills.

On the other hand, the current convulsed times are also characterized by dystopian and retrotopian ideas of the future (and in the midst of which there are changes that are coming in the world of work – and in particular, professional work), and so there is consensus that higher education should focus on training professionals capable of facing the current trends of professional work, and in the creation of labor profiles increasingly tending to the knowmad.

Meanwhile, the structural de-qualification of degrees, which is evident in different Latin American countries, confronts the possibilities for professionals to experience their work with subjective wellbeing, and challenges higher education to train them to be able to perform in a working world that oscillates between a disciplinary paradigm, characterized by the application of normative devices, and one of performance, whose central premise is self-regulation.

These and other crossroads that the advances of societies are imposing on higher education require policies based on strategic visions that embrace the changes that are coming in relation to professional training for work, and with respect to the

ways in which higher education will face the multiple dimensions of its tasks. At the same time, such crossroads open up possibilities for the development of new professional skills that will make it possible to successfully navigate the contextual dynamics.

A likely skill to be worked on during professional training, and at the same time possible to be applied by those of us who are part of higher education in our respective countries, corresponds to the exercise of prognostic intelligence, as a rational policy for the future.

Sloterdijk [48], following Jean-Pierre Dupuy, argues that “only experienced apocalypitics can exercise a rational policy of the future, given that they are courageous enough to also consider the worst as a real possibility” (p. 15). This alludes to what Dupuy [49] called enlightened catastrophism, which consists of a new way of managing uncertainties and risks, resulting from assuming a final event as if it had already occurred.

It is then a matter of projecting ourselves through to the moment after the occurrence of an undesired event, looking back in the direction of our present, seeing in such an event a destiny, but a destiny that we may choose to discard while there is still time. In such a context, the ideas of uncertainties, risks, catastrophes and apocalypse change from a negative sense to a positive and socially useful one of predictive rationalism. Therefore, it is possible to argue that the idea of prognostic intelligence encompasses a greater dimension than the one proposed by these authors, since it can also incorporate the dimension of predictive rationalism, which predicts good things and not only apocalyptic events.

Prognostic intelligence corresponds to the exercise of a rational future policy. Therefore, it is different from the analysis through various forms of artificial intelligence, which, based on a set of data that allow the configuration of algorithms, can predict future behaviors or events. It is a skill that can be developed during professional training, to be put into practice in facing the crossroads of higher education; and, in the future, anticipating negative effects that may be generated from it, or enhancing the positive consequences that may arise from advantageous situations.

Thus, the positive or negative outcomes of online higher education, the way in which the future of work is shaped and its impact on professional practice, and the subjective well-being of future professionals are all susceptible to being addressed through prognostic intelligence.

The concept of prognostic intelligence involves a predictive rationalism, broader than classical philosophical rationalism, since it involves not only the use of reason modeled by experience to know a phenomenon, in the Kantian sense. Rather, it corresponds to thinking about a future apocalyptic or advantageous action, assuming that it has already happened, in order to analyze from there the sensitive, experiential and cognitive contents of professional life that have been affected (**Figure 2**).

The following scheme summarizes its components:

The sensible contents of professional life correspond both to subjectivities and to those that are experienced bodily, such as emotions and intuitions. The latter, in the sense proposed in Leibniz’s humanistic philosophy. Here, intuition is based on an infinity of perceptions, which are not conscious, but are nevertheless part of our lived experiences as “sensations”. Experiential contents, on the other hand, are those daily experiences that allow us to give meaning to the different aspects of professional life. Cognitive contents, in turn, correspond to the intellectualizations that are available in the cultural collections with which higher education is developed, and the subsequent labor exercise.

Prognostic intelligence could be put into practice during the formative process, analyzing the positive and negative consequences of online higher education in times of pandemic, the future of professional work, the possibilities for

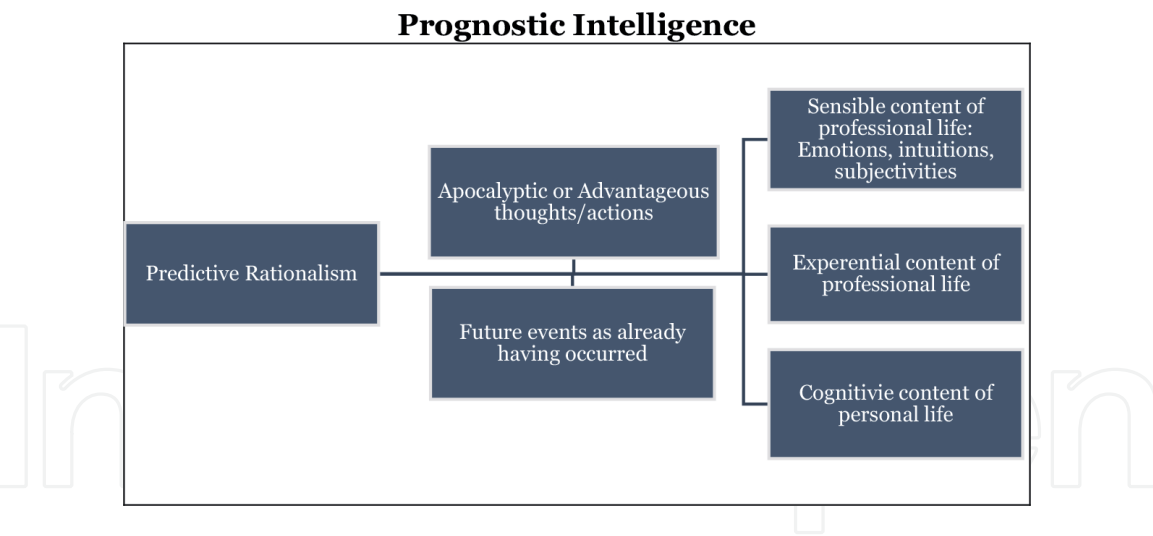


Figure 2.
Source: Author, 2021.

professionals to develop their tasks with increasing levels of subjective wellbeing, and the crossroads for higher education. This would also allow the development of this professional skill as a tool that professionals would have upon graduation from higher education. Where some will become responsible for the formation of new cohorts of their professions, or more broadly, of their professional areas, this tool will continue to be transmitted, thus becoming part of the professional ethos.

At the same time, the review of the consequences of an advantageous or apocalyptic event, taking into consideration all these types of contents of professional life, would make it possible to outline a future of higher education with greater possibilities of paying attention to the consequences of contextual events, opening up opportunities to embrace new ways of development.

6. Conclusions and recommendations

The crossroads discussed result from the massification, segmentation, and fragmentation of higher education, changes in education, and the future of professional work. Given exacerbation from social turbulence – and in Latin America¹, especially since 2019 – the need to develop visionary strategies to face such challenges has been made apparent. Indeed, these challenges have been met, in part, by online academic work as a way of expanding student cultural, social, and symbolic capitals; as well as access to different worlds, cultures, realities, and subjectivities.

Furthermore, trends in the future of professional work show students need to develop ubiquitous learning, i.e., the ability to learn by themselves, to make use of skills such as abstraction, reasoning, synthesis and critical thinking. In this regard, prognostic intelligence – which amalgamates cognitive, sensitive and experiential contents – offers a predictive rationalism about future events to enhance the development of these skills, at least, during professional training; and, ideally, throughout educational models before and within higher education. Implementation would expand upon these and other professional skills in the immediate future, open alternatives in the labor force, and promote advantageous (over apocalyptic) prognoses of future

¹ These reflections derive from the research “Rethinking undergraduate training in social sciences in Chile from the imaginary of the future of professional work”, Cod.DI / 37.0 / 2021, funded by the Vice Chancellor for Research y and Advanced Studies of the Pontificia Universidad Católica de Valparaíso, Chile, to whom we thank the financial and academic support.

events. Similarly, prognostic intelligence would facilitate teaching approaches in the face of inevitable transformations in both higher education and in professional work.

While self-learning – and the associated skills in abstraction, reasoning, synthesis and critical thinking – facilitates ubiquitous learning, increases the subjective well-being of professionals, and expands new worlds of opportunities, there remain emerging social problems that require investigation and inputs for policies to address them, worldwide and in Latin America particularly. Open questions include the structural de-qualification of qualifications, the imaginaries of future professional work, the effects of teaching and utilizing prognostic intelligence, and the impacts of artificial intelligence on the future of training and professional work. Research and policy approaches should consider the realities of different latitudes, the transformational contexts in higher education and labor, and the upcoming crossroads generated from such changes.

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