

David Antolínez Uribe Universidad de la República, Uruguay, Montevideo
e-mail: d.antolinez.uribe@gmail.com

A NEW RELIGION FOR THE 21ST CENTURY: AN INTERPRETATION OF 'DATAISM' FROM THE SOCIOLOGY OF PIERRE BOURDIEU

The article makes predictions about dataism, noting disagreements over the definition, highlighting the tendency to perceive it as a problematic threat to humanity. Dataism is considered in terms of specific religious traits, the construction of faith and trust in algorithms, the formation of groups of specialists and the accumulation of symbolic power. Pierre Bourdieu's sociology of religion is a theoretical framework used to study worldviews, beliefs, and moral precepts stemming from dataism. In turn, virtuality and digital practices challenge the traditional concepts of habitus and disposition used in sociology, which requires redefining some of the epistemological and methodological aspects of such a conceptual framework. Dataism began as a neutral scientific theory, but now it is mutating into a religion that claims to define right and wrong. Bourdieu's approach to the study of religious phenomena (the composition of the clergy, the distribution of habitus among the population and the relationship between religious and non-religious areas) provides an interpretation of dataism that creates and provides for spiritual needs, a worldview associated with trust in the algorithm and moral requirements arising from the dogma of freedom information. At the same time, the question is raised of further clarification of the actors involved in the institutionalization of the clergy, about the places and temporality for performing rituals and habitus, about the actions of technological devices. The author supports the conceptualization of dataism as a religion, as it suggests elements that provoke beliefs, doctrines, and practices that are capable of changing society, and shares considerations to guide further theoretical or empirical research into dataism.

Key words: Bourdieu, dataism, religion, virtuality, digital practices.

Дэвид Антолинез Урибе

Республикалық университет, Уругувай, Монтевидео қ.
e-mail: d.antolinez.uribe@gmail.com

XXI ғасырдағы жаңа дін: Пьер Бурдьё әлеуметтануындағы «датаизм» түсінігі

Мақалада датаизм туралы болжам жасауға талпыныс жасалынып, осы түсінікке қатысты түрлі қарама-қарсы пікірлерге назар аударылып, оны адамзатқа проблемалық қауіп ретінде қабылдау үрдісі көрсетіледі. Датаизм нақты діни белгілер, алгоритмдерге сенім мен сенімді құру, мамандар тобын құру және символдық күштерді жинақтау тұрғысынан қарастырылады. Пьер Бурдьёнің дін әлеуметтануы – датаизмнен туындайтын дүниетанымдық көзқарастарды, сенімдерді және моральдық өсиеттерді зерттеу үшін қолданылатын теориялық негіз болады. Өз кезегінде, виртуалдылық пен цифрлық тәжірибелер әлеуметтануда қолданылатын дәстүрлі әдет-ғұрып концепциялары мен диспозицияны сыни қарастырып, бұл мұндай тұжырымдамалық негіздің кейбір гносеологиялық және әдіснамалық аспектілерін қайта анықтауды талап етеді. Датаизм бейтарап ғылыми теория ретінде бастау алып, бірақ қазір ол дұрыс пен бұрысты анықтауды талап ететін дінге айналады. Бурдьёнің діни құбылыстарды зерттеу үшін қолданатын әдіс рухани қажеттіліктерді (діни қызметкерлерінің құрамы, габитустың халық арасында таралуы және діни және діни емес аймақтар арасындағы қарым-қатынас) тудыратын және қамтамасыз ететін алгоритмге сеніммен байланысты дүниетанымды және ақпарат бостандығы догмасынан туындайтын моральдық талаптарды датаизм ұғымымен түсіндіреді. Сонымен бірге, діни басқармаларды институттандыруға қатысатын субъектілерді, салт-жоралар мен әдет-ғұрыптарды орындайтын орындар мен уақытты, технологиялық құрылғылардың әрекеттерін одан әрі нақтылау мәселесі көтеріледі. Автор датаизмнің дін ретінде концептуализациясын қолдайды. Өйткені ол қоғамды өзгертуге қабілетті нанымдарды, доктриналарды және тәжірибелерді қоздыратын элементтерді ұсынады және датаизмдегі одан әрі теориялық немесе эмпирикалық зерттеулерді бағыттау үшін түсініктермен бөліседі.

Түйін сөздер: Бурдьё, датаизм, дін, виртуалдылық, цифрлық тәжірибелер.

Дэвид Антолинез Урибе

Республиканский университет, Уругвай, г. Монтевидео
e-mail: d.antolinez.uribe@gmail.com

Новая религия для 21 века: интерпретация «датаизма» из социологии Пьера Бурдьё

В статье даются прогнозы относительно датаизма, отмечаются разногласия по поводу определения, выделяя тенденцию воспринимать его как проблематичную угрозу человечеству. Датаизм рассматривается с точки зрения специфических религиозных черт, конструирования веры и доверия к алгоритмам, формирования групп специалистов и накопления символической силы. Социология религии Пьера Бурдьё – это теоретическая основа, используемая для изучения мировоззрения, убеждений и моральных предписаний, вытекающих из датаизма. В свою очередь, виртуальность и цифровые практики бросают вызов традиционным концепциям габитуса и диспозиции, используемым в социологии, что требует переопределения некоторых эпистемологических и методологических аспектов такой концептуальной основы. Датаизм зародился как нейтральная научная теория, но теперь он мутирует в религию, претендующую на то, чтобы определять правильное и неправильное. Используемый подход Бурдьё для изучения религиозных явлений (состав духовенства, распределение габитуса среди населения и взаимосвязь между религиозными и нерелигиозными областями) дает интерпретацию датаизма, который создает и обеспечивает духовные потребности, мировоззрение, связанное с доверием к алгоритму и моральные требования, вытекающие из догмы о свободе информации. Вместе с тем ставится вопрос дальнейшего выяснения акторов, вовлеченных в институционализацию духовенства, о местах и темпоральности для совершения обрядов и габитуса, о действиях технологических устройств. Автор поддерживает концептуализацию датаизма как религии, поскольку он предполагает элементы, провоцирующие верования, доктрины и практики, которые способны изменить общество и делится соображениями, чтобы сориентировать дальнейшие теоретические или эмпирические исследования датаизма.

Ключевые слова: Бурдьё, датаизм, религия, виртуальность, цифровые практики.

Introduction

Dataism has emerged at the 21st century as a new social phenomenon. Even though the importance of data and the development of technology are not novel, the past decades have shown how the increased accessibility to digital technology ultimately results in a re-configuration of many social activities (Holmes, 2017). It is not yet clear whether the epochal change is imminent or not, neither if this current scenario brings menaces or advantages. Like any arising trend in technology, dataism is not completely developed yet, so any prediction can only be speculative.

Before asking where is dataism taking us, we might question: what *is* dataism? The term ‘dataism’ was meant to designate the philosophy or mentality which place trust in algorithms to make decisions in a wide spectrum of human activities – from choosing a restaurant to decide whether to invest on stock market (Brooks, 2013). Since this characterization of dataism as ‘mentality’, the same term has been used to describe an extension of the surveillance practices of late capitalism (Van Dijck, 2014), a new conceptual framework to conciliate material and virtual practices (Vyshnevskiy, 2019), an innovative ideology on its own right (Kondratenko,

2019), a strategy of technological fetishism which leads towards nihilism (Han, 2017) and as a form of psychopathology in the digital era (Campaño, 2018). There seems to be dissent about how to understand dataism, but there is a clear tendency to conceive it as a problematic threat to humanity.

One of the most intriguing conceptions of dataism is its definition as a new religion. The most exhaustive portrait of this kind is in *Homo Deus* (Harari, 2017). By turning explicit the thesis that belief in data derives in an ethical code of conduct, a worldview to interpret reality and the worship of certain figures, Harari introduces a new approach towards dataism. In addition to the impact of technology on society, the Hebrew historian claims it is necessary to understand the religious sentiments and practices of dataism. Unfortunately, Harari’s definition of religion is rather vague, loosely including political liberalism and communism along Christianity and Hinduism. On a sociological level, he states, a religion is not defined by the belief in Gods or transcendental powers, instead being delimited by its function of legitimation system for a code of norms and behaviors. In short, a religion must provide a cohesive way to comprehend the world and guide our actions within it.

Following this idea, the academic debate over dataism usually treat it as an ideology (Cotino,

2019). After all, if a religion is merely a legitimation system, it can be equated to the cultural beliefs that shape our understanding of reality – including its social and 'spiritual' domains (Žižek, 1989). In this theoretical landscape, Peters (2017) is the only one who actually assumes the conception of dataism as a new faith. The American theologian notes a correlation between the augmented fascination of the youth for technology and the decay of their participation in pastoral activities. Also, he rightly criticizes his fellow scholars for the avoidant attitude towards the new social dynamics imposed by virtuality. After this fleeting *status quaestionis*, one might ask if the political interpretation of dataism as ideology is enough to provide a sufficient description and explanation for the religious beliefs and practices it provokes in contemporary societies.

The present paper aims to understand dataism as a new religion from a sociological perspective. Broadly, it will be explored if dataism has enough specific features to be included in the religious field. Narrowly, it will be inquired how the belief and trust in algorithms are constructed, how a particular group of techno-religious specialists is fashioned, and how data accumulates its symbolic power. To pursue those goals, it will be used the sociology of religion proposed by Pierre Bourdieu. First, I will provide a succinct reconstruction of his conceptual framework to clarify some of the notions and categories needed to understand religion as social phenomenon. Then, based on Bourdieu's empirical case analysis of French Catholicism in the mid-20th century, I will venture an analogous reading of dataism. Finally, I will advance a preliminary discussion on the limits of Bourdieu's theoretical model and the challenges dataism pose to contemporary sociology.

The main purpose is not to provide a complete definition of dataism, a fixed set of criteria about the 'religiousness' of any social phenomenon, nor to prescribe dataism in its moral dimension. Instead, this article seeks to provide a critic review of the bibliography available on dataism understood as religion. By doing so, I pose a double challenge where the theoretical models of sociology of religion interrogates the empirical phenomenon of dataism and vice versa. Being this an entirely documental research, it is expected that further empirical investigations might shed more light on the matter. Following the ideas of Passeron and Revel (2005), I will not present the discussion in manner of 'proof', rather I strive for a significant analysis of how society shifts its beliefs and practices due to technology. This research is advanced in the descriptive and

explorative spirit, to enhance our comprehension of dataism.

Conceptual framework for a sociology of religion

As Dianteill (2002) lucidly states, it would be misleading to speak of sociology of religion separated from the main *corpus* of Pierre Bourdieu. The concern about the construction of beliefs and the way they acquire symbolic power traverses his entire work. Bourdieu (1968) asks how could sociology understand the 'beliefs' as social constructs, beyond the Kantian tradition that privileged the epistemological dimension. The French author conceived sociology as a discipline which ought to understand the integrality of social practices, structures and symbols. In order to do so, the sociologist should avoid the dangers of substantialism and psychologism, while also being cautious to not reduce the empirical data into a singular theoretical model (Bourdieu et al. 1973)¹. Therefore, 'sociology of religion' is only an artificial differentiation that aids the researcher to delimitate his own investigation.

Nonetheless, the French author published two major works focused on religion: '*Genèse et structure du champ religieux*' (Bourdieu, 1971) and '*La sainte famille. L'épiscopat français dans le champ du pouvoir*' (Bourdieu and Saint-Martin, 1982). On the first text, Bourdieu advanced a theoretical dissertation of how religion became a structured field. He opposed to both Durkheim and Weber accounts for religion, since they omitted the historical dimension of the process in which the religious field *gained* its autonomy². On the second text, Bourdieu provided an empirical approximation of his early conceptual framework to the reconfiguration of French clergy during the time of Second Vatican Council. Since in this case the religious field was already established, Bourdieu focused his attention in the *maintenance* of the symbolic power. He employed a mixed methodology – combining archive documental research with biographical interviews of some bishops. It is worth reviewing in greater detail both articles understand better how sociology of religion articulated its singular set of concepts and categories.

¹ Bourdieu (1987) was interested in conciliating the traditions in classic sociology to create a social theory which conjugated an interactional perspective with the functional-pragmatic analysis and a refined historical sensitivity. In short, he was trying to craft a 'genetic structuralism'.

² The 'autonomy' of the field should not be understood as equivalent to independence. Each field of social life is interconnected by their political connotations and their impacts on the civil life.

Bourdieu started his 1971 article ‘*Genèse et structure du champ religieux*’ by challenging the idea that language alone could create symbolic forms. The linguistic approach promoted by neo-Kantianism was not enough to explain some features of religion, like rituals, beliefs, discourses and practices. To Bourdieu religion was a cohesive mark for cultural identification, a form of communication, and a medium required for symbols to generate pragmatic effects. The French author indicated that a certain amount of social work is required for both the unification of the religious field and the accumulation of symbolic power. He constantly stressed this circular process in which religion needs regular practices to be articulated within society. Since symbols are not an automatic result of social exchange, Bourdieu had to pose the concept of habitus to provide an explanation of the social work required for the aforementioned process. Symbols emerge and circulate through regular practices which enable a cohesive location and temporality for the religious phenomena¹. Thus, without those particular habitus, religion could never become an autonomous field.

Years later, Bourdieu (1980, 88) would give a better definition of habitus as “a system of durable dispositions [...] which are objectively adapted to their goal without supposing a conscious design of goals or a complete mastery of the methods required to achieve them”². With this notion of ‘disposition’, Bourdieu included the specific location, practices, and representations of any social actor. Etymologically, ‘habitus’ traces back to Aristotelean metaphysics, but the French author emphasized how the habitus are embedded in historical events and exchanges between collectives. By adding those nuances, the pragmatic dimension of the habitus is reiterated. Above all, the habitus is an inherited attitude – i.e., deeply rooted in cultural tradition – that shapes the ideas and behaviors of any social actor. Even in his earliest conceptualizations, Bourdieu (1971) opposed the customary habitus to the rational *logos* to claim that the stability of any social field does not depend on logic or coherence. Regarding the religious field, the inner hierarchy of the clergy and the consistency of the dogmas had less relevance than the actual beliefs and representation of the laymen.

Trying to give a global account of the genesis of

religion, Bourdieu (1971) pointed to the transition from rural communities to urban organizations. The division between manual and intellectual labor conditioned the organization of symbols in the social life. In this scenario religious actors arose to supply the spiritual demands - concerns about the meaning of life, the metaphysical worries regarding the afterlife and the moral questionings about good and evil - of the population (Bourdieu and Saint-Martin, 1982). As the civil society progressed, ancient figures like the shaman or sage could not supply the increasing spiritual demands, which lead to the constitution of an institutionalized class of religious experts: the clergy. Then, the priests developed a *corpus* of spiritual knowledge – scriptures, exegetic rules and theological doctrines – along their correlative moral codes. However, Bourdieu (1971) noted that clergymen did not only respond to the spiritual concerns, but also generated new ones to maintain their specificity as intellectual class. Even more, to preserve the symbolic power and the autonomy of the religious field, the church need to elaborate a greater gap between sacred and profane by excluding the laymen of certain spiritual knowledge and by establishing rituals that naturalized the leadership of priests (Bourdieu, 1982). Ultimately, this process provided greater systematization to the already existing habitus.

Finally, regarding the inner structure of the expert class, Bourdieu highlights three aspects. First, the non-monolithic character of the religious institutes, which rendered the church as a complex platform with many connections with other social fields like economy, law, education and politics (Bourdieu, 1971). This allowed the religious field to expand its influence over other parts of the population, even if not devoted laymen themselves. Second, to counterbalance this large heterogeneity, the church installed fixed dynamics of obedience with a single visible head on top of the hierarchy (Bourdieu and Saint-Martin, 1982). This strategy enabled the clergy to sub-divide their specialist labor, while maintaining a sense of unity. Third, as extension of the former tactic, the church had to conceal the theological discussions and the transference of financial and symbolic capital during times of social change (Bourdieu, 1980). With this interplay the religious actors could deepen even further the division between sacred and profane while also increasing their political agency without directly being part of other social institutions – such as the government offices, law courts or stock markets.

¹ The habitus structured the religious field by providing cohesive locations – temples and churches – along clear temporalities – holidays and festivities – to gather the religious experience. Bourdieu (1971) claims that the distinction between sacred and profane is not inherent to religion, but constructed from those regular practices.

² Translation from the original French are made by the author.

An empirical approximation to religion from the sociology of Bourdieu

La sainte famille. L'épiscopat français dans le champ du pouvoir (Bourdieu and Saint-Martin, 1982) presents an empirical approximation to the reconfiguration of French clergy during the Second Vatican Council. A brief recount of how Bourdieu uses his own categories and notions will be useful to select the pivotal concepts needed for an applied sociology of the religion. Since there is no prior link between the Second Vatican Council and dataism – the main interest of this current research – it should be clarified the utility of reviewing this empirical case drawn by Bourdieu. As Kuhn (1982) argued, the study of an abstract theory is not enough to enable the understanding of conceptual terms. It is needed, instead, to regard an exemplary case for each theory – usually an *experimentum crucis* – to see how their key aspects interact with the empirical evidence. In other words, this detour to French Catholicism will help us refine the previous abstract theoretical framework to select the best conceptual tools to venture an interpretation of dataism. To favor expositive clarity in this reconstruction, I will not follow Bourdieu's order – which often overlaps theoretical reflection, methodological observations and empirical research – but instead I will use a chronological line to distinguish between the state of the clergy before, during and after the Second Vatican Council.

In the 1950s French Catholicism was imbedded in popular and rural classes, thanks to its educational institutions. In contrast, Protestantism and Atheism were centered in urban settings among the high-educated population. This articulation between rural churches and primary schools allowed Catholicism to recruit young students to the seminars. Thus, even if the catholic faith was not predominant, new generations of priests were formatted during those years. One characteristic of this formation process was the phenomenon of inherited capital from bishops and older priests, which derived into some asymmetry among the episcopate: while some priests were focused on the scholastic labor, others directed their efforts outside the schools, seminars and colleges. By the late years of the decade, when the postwar effects merged with the civic inconformity and the global political tension of the Cold War, France was facing the first stages of the social crisis that would detonate in 1968. Bourdieu argues that during this period, the Catholic church went through a period of polarization. Those priests orientated towards civic

life acquired some prophetic profiles – whether they assumed a reactionary or revolutionary stand – on their sermons and speeches. This was a sign of further social shifts and institutional changes, as Bourdieu observed, so it was no surprise when Pope John XXIII gathered bishops under a general council.

The Second Vatican Council started in October 1962, reuniting more than two thousand bishops during three years. The main goal was to address the relation between the church and the modern world. The renovations that came as result of this council changed the Catholic church world-wide, nonetheless facing certain resistance from within the clergy. Particularly in France during the first half of the 1960s, several interconnections between the church and other social institutions proliferated. Bourdieu noted a swift from the educational emphasis to new alliances with editorial companies, which brought closer the episcopate to the urban life. As result, there was a vocational crisis in the rural settings and a smaller renewed interest towards religion from the intellectual class. This resonated with some official documents published by the Holy See which encouraged the clergy to embrace a more inclusive attitude regarding other religions and non-believers¹. Certainly, this generated some negative reaction from elder priests and laymen who wanted to conserve the traditional customs. Unfortunately, instead of achieving some kind of conciliation, this inner crisis of the episcopate was enhanced by other documents from Rome which prescribed a more horizontal relationship between the bishops and the priests. All those resolutions changed the way inherited capital served as a mechanism of inner promotion within the church.

In the late 1960s, in the controversial atmosphere of France, the still recent determinations of the Second Vatican Council drove the episcopate to new directions. The abovementioned vocational crisis left a generational gap between the old priests and bishops – retreated to rural schools – and the younger clergy. The former group was reluctant to abandon their old rites and ethical codes, while the latter was open to dialogue with distinct non-religious social actors. A quick reading might conclude that the religious field lost its autonomy due to the convulsion of its regular practices. However, Bourdieu claims that the renewed clergy did not only in-

¹ Bourdieu advanced an archive research with several acts and files that register how those Vatican documents were received in France. Since there is no access to the sources he used, I limit myself to refer the main Vatican documents: *Unitatis Redintegratio*, *Orientalium Ecclesiarum*, *Dignitatis Humanae*, and *Nostra Aetate*.

roduced new ideas, but were able to engage with several bureaucratic functions to spread their own doctrine endorsed by Rome. The key aspect is not the conflict between the ancient and the newcomers, but the renewal of spiritual demands in the population. By pullulating the civic life, the urban scenario and the intellectual classes, the new generation of priest assembled new layman in different locations, providing the proper setting for a continuous religion experience that could endure the time of political crisis France was going through.

A tentative sociological interpretation of dataism

From the previous section it is possible to highlight some pivotal concepts: 1) the institutional articulations and their political effects, 2) the task of recruit new members for the clergy, 3) the role of a visible head that unify the heterogeneous episcopate, 4) the documents and doctrines not discussed by the laymen but applied according the obedience dynamics of the church, 5) the rigid character of habitus among older clergymen and laymen, and 6) the necessity of renovate the spiritual demands to prolong the religious expert class. These six points will help us elucidate the structure and dynamics of dataism as social phenomenon and shed some light over the question if dataism could be considered a religion. However, since Bourdieu examined an already-established institution as the Catholic church, he omitted some useful concepts to explain the genetic process of the religious field: 7) the distribution of habitus among the collective, 8) the cohesive locations and temporalities that enable regular practices, 9) the cultural identity of the laymen and, 10) how the clergymen became a constituted class. This crafted ‘Decalogue’ – inspired but not necessarily faithful to the sociology of religion posed by Bourdieu – will guide the interpretation of dataism for the next part of the article.

Regarding (1) the institutional articulations produced by dataism, one might be tempted to enlist the companies and universities located in Silicon Valley (Apple, Google, eBay, Facebook, Netflix, PayPal, Tesla, Twitter, Stanford, Palo Alto, Berkeley, etc.). But as I shall later develop, the matter of location must be re-considered when dealing with technology and virtuality. In order to relate to other social fields, dataism ought to engage in reciprocal exchanges with technology industry, entertainment, labor, education and politics. When internet service providers link themselves with smartphone

engineers, content producers, and device sellers, dataism can go beyond its own field – impacting the market, schools and homes. This eventually lead to new trends among the designers of public spaces - libraries, airports, parks, community centers - who aims for better connectivity to close the gap between offline and online experience (Briscoe & De Wilde, 2006). By these alliances, digital practices can achieve a wider sense of location. In a similar fashion, when questioning about (2) the issue of new members of the clergy, it would be appealing to see the system engineers as the specialized working class of dataism. Even though algorithms need to be programmed by human minds, the creation of such software is not identical with the proliferation of dataism as belief. Besides the digital designers, the dataism clergy relies heavily in those who advocate for the digital accessibility and freedom of information (Bloom, 2006). It might be hacker groups (Wikileaks, Anonymous or Hacktivism) or international organizations (UNESCO, World Bank), but those who argue for digital rights are doing something quite similar to evangelization.

Moving to (3) the visible head, is rather evident the lack of a central command in a single figure: there is no such thing as a Pope who rule over the clergy of dataism. Nonetheless, dataism requires complex dynamics of authority and obedience in order to have pragmatic effects on social life. It might be suggested that, in a similar fashion of the power relations and sovereignty style of the 21st century, dataism deploys a mobile network of dominance (Hardt and Negri, 2000). When deepen in the conception of dataism as religion and not merely ideology, the portrait of Harari (2017, 497) is quite useful: “On 11 January 2013, Dataism got its first martyr when Aaron Swartz, a twenty-six-year-old American hacker, committed suicide in his apartment. Swartz was a firm believer in the freedom of information”. In addition to this paradigmatic martyr, Harari also name as prophets of dataism Bill Maris, Aubrey de Grey and Raymond Kurzweil, remarkable not only remarkable due their scientific research, but also for their public speech that highlights the wonders technology will accomplish. Bourdieu & Saint-Martin (1982) do not discuss the role of prophets and martyrs on their work, but stress the vital role of the head to maintain the unity of the church. Following this definition, it is possible to claim that the martyr and prophets described by Harari assume such functions, helping to structure the emergent clergy as well as being source of inspiration for future generations of dataism believers.

Harari is also very illuminating on the matter of (4) the documents and doctrines at the core of dataism. Continuing with the story of dataism first martyr, Harari (2017, 497) states: "In 2008 [Swartz] published the 'Guerrilla Open Access Manifesto', which demanded a free and unlimited flow of information". It is worth noting that Swartz did not use the term dataism, neither did he pleaded for a blind trust in algorithms. Despite the name of 'Manifesto' this document is not a foundation of dataism, but rather a programmatic mandate for the freedom of information. Earlier on his book, Harari (2017, 111) provides a definition of algorithm: "An algorithm is a methodical set of steps that can be used to make calculations, resolve problems and reach decisions. An algorithm isn't a particular calculation, but the method followed when making the calculation". Later on he gives a synthesis of the worldview inherent to dataism: "Dataism declares that the universe consists of data flows, and the value of any phenomenon or entity is determined by its contribution to data processing (Harari, 2017, 476)". This way, by demanding the users of the Internet to facilitate the access to information, the 'Guerrilla Open Access Manifesto' supports the dogma of dataism. Finally, Harari (2017, 494) further explain the doctrine of this new digital religion:

Dataism began as a neutral scientific theory, but is now mutating into a religion that claims to determine right and wrong. The supreme value of this new religion is 'information flow'. If life is the movement of information, and if we think that life is good, it follows that we should deepen and broaden the flow of information in the universe. According to Dataism [...], humans are merely tools for creating the Internet-of-All-Things, which may eventually spread out from planet Earth to pervade the whole universe. This cosmic data-processing system would be like God. It will be everywhere and will control everything, and humans are destined to merge into it.

However, the explicit doctrine is a relative minor part of religion according to Bourdieu (1980). In this sense, Harry Collins (1990) have pointed out that the general public might not understand the operations of Algorithms, but will engage anyhow on interaction with Artificial Intelligence. As Harari (2017, 499) bluntly says: "People just want to be part of the data flow, even if that means giving up their privacy, their autonomy and their individuality". This idea leads us to the (5) the habitus – i.e., unconscious dispositions - of both clergymen and laymen; a crucial point to understand how beliefs

and practices are rooted in the population. Each time parents try to control the time their children spend before a screen (Brito, Francisco, Dias & Chaudron, 2017), a digital community develops new words and slangs (Sykes, 2019), a company adopts information systems to improve its productivity (Butler, 2003), architects employ communication technologies to conjugate sustainability and aesthetics (Allpress, 2011), or teachers include digital skills in their educational programs (Lankshear, Araya & Knobel, 2018), we presence the habitus that enable dataism to accumulate symbolic power. It is not only the spread of digital technology in everyday life, but the trust in algorithms to make better decisions what renders dataism an effective social phenomenon (Lohr, 2015). The current research is too focused on increasing digital literacy among digital immigrants, the digital divide product of economic inequity, and the advent of technological singularity. Further investigations should inquire how those digital habitus shift from generation to generation.

Meantime, we can slightly elucidate the pragmatic dimension of those habitus by asking (6) what spiritual demands are they supplying. Remember that Bourdieu (1971) divides the spiritual demands into metaphysical worries and moral questionings. I have already shown how the dogma of dataism dictates that all information should flow, making us responsible for facilitating such process. But it is not so easy to see the metaphysical counterpart of those demands, since dataism might be seen as a religion of immanence¹. Harari (2017, 455) argues:

"[Silicon Valley] is where hi-tech gurus are brewing for us brave new religions that have little to do with God, and everything to do with technology. They promise all the old prizes – happiness, peace, prosperity and even eternal life – but here on earth with the help of technology".

However, even in the realm of direct immanent experience, there might be some metaphysical worries as the fear of death and the evolution of humankind. Recall the 'Internet-of-All-Things' god-like system yet to come that will merge all the living into an 'ocean of consciousness'. Are not those notions reminiscent of a spiritual dimension, even if it happens in the hereabout world? Furthermore, it is still not clear how the internet and its online interaction

¹ It can be argued that dataism follows a tradition of philosophers concerned with a complete theology free from any transcendental cause. The main ancestor is the pantheism of Baruch Spinoza. Two centuries later the same intention motivated the 'Religion of Humanity' founded by August Comte, a humble organization which still has chapels in France and Brazil. Thus, dataism would be a further step in the enterprise of constituting a global religion of immanence.

remain immanent. The virtual experience certainly provokes new conceptions about personal identity and significant relationships (Nagy & Koles, 2014). Doubtless, virtual life poses a challenge for our understanding of social interaction. Still, the key question sociology of religion inspired by Bourdieu should ask is: what new spiritual demands will dataism craft once it has fulfilled all its promises?

The next items, (7) the distribution of the habitus among some (8) cohesive location and temporalities, could be included under the question: does dataism have any kind of rites? A satiric portrayal of dataism would involve herds of data-believers peregrinating to Silicon Valley, as Muslims traveling to Mecca. But such cartoon is not quite different to the reality of internet users who seek places to connect their smartphones to a Wi-Fi network or an outlet to recharge battery. Anyhow, it might be best to understand the matter of cohesive spaces within the virtual domain where believer gather (McIntosh, 2015). Whether it might be through an e-mail inbox, a news portal or a social network, thousands of people have acquired the daily habit of produce and consume information. On the other side, the issue of cohesive time is harder to contemplate, since most of the online interaction is diachronic and oblique (Virilio, 1986; Rybas & Gajjala, 2007). This is why Han (2020) has stressed the lack of rituals in dataism, where prevails the immediacy of communication and the absence of symbolism. Following his ideas, dataism is the contrary of religious experience, understood etymologically as the repeated lecture, contemplation and prayer humans do to get closer to the divine. It might sound reasonable from a theological perspective, but since this article assumes a sociological definition of religion, we cannot discard *a priori* the digital practices as if they could not be counted as habitus or rituals.

The last items of the *ad hoc* criteria built refer to (9) the cultural identity of the laymen and (10) the constitution of the expert class. I already suggested that, as dataism spread through other social fields, a special lexicon and identities are constructed around digital practices. For instance, the popularized notion of ‘digital natives’ designate a generational gap between the people who developed digital literacy in adulthood against the people who grew up surrounded by information technologies. This concept has been received with skepticism from many educators, since there is no evidence that support a different set of skills regarding technology in younger generations (Margaryan, Littlejohn & Vojt, 2011). Nonetheless, the term ‘native digital’ might have a

social function instead of a cognitive one; namely, to delimitate the population who use algorithms in everyday life choices. In other words, digital natives are potential believers of dataism who might eventually spread the doctrine among others¹.

This work of evangelization is precisely what links laymen and clergy. Following Bourdieu & Saint-Martin (1982), the habitus structure the former group, but the latter one require an institutionalization process to become an expert class. Dataism has won symbolic power creating a necessity for data-mining and data-analysis among companies, universities and even governments (Provost & Fawcett, 2013). However, it is misleading to regard data-scientists and system engineers as members of the specialized working class. Viaene (2013) lucidly argues that data-scientists do not have a particular domain of expertise, since they rely on whatever phenomenon being measured. A collective of data-scientists can do no work on their own, let alone supply the spiritual demands of laymen. Also, one might say that the key social work of such specialized class is to create and renovate such demands in order to assure their existence. In other words, ‘priests’ of dataism are not the ones who solve problems through algorithms, but the ones who declare the benefits of using digital technologies. In this sense, Harari (2017) rightly points out the primal prophets and martyrs of dataism as the cornerstone of a yet-to-come church of dataism. At this point it is only possible to speculate that, once dataism is institutionalized, there will be no doubt of the ‘religiosity’ of this social phenomenon.

Challenges of digital phenomena for sociology of religion

So far I have ventured a tentative approach to dataism from the conceptual framework previously deployed. This preliminary interpretation is by no means an orthodox use of Bourdieu’s theory, nor an exhaustive account of dataism. Further documental and empirical research must be done to comprehend better the complexities of religion in the 21st century. The main contribution of this research is to emphasize the conceptualization of dataism as religious phenomenon, instead of merely a political ide-

¹ This action is not as implicit as it might seem. There are online blogs whose only purpose is to disseminate the promises of dataism – progress in science, longer lifespan, etc. – and the benefits of freedom of information. On Reddit there are specific communities ‘DataIsBeautiful’, ‘Futurology’ and ‘Dataism’ which are worth to explore deeper in future investigations.

ology. Any explanation of dataism that only focuses in the power relations and economic repercussion of digital practices won't be able to explain the world-views, the moral dictates, the metaphysical concerns and the operative beliefs of dataism. However, an inverse approach might be useful; namely, to use the empirical data of dataism – no pun intended – to question the conceptual apparatus of sociology of religion. Many features of this emerging phenomenon do not fit the theoretical models used by sociologist. In this final section I shall briefly mark out some anomalies that future research ought to consider to improve our interpretation of dataism.

First, there is a subtle evolutionism within Bourdieu's theory, especially concerning the way division of labor leads to the constitution of a religious expert class. Quite conveniently, this process is parallel with the shift from primitive-rural communities to complex-urban societies, which eventually ends in the scission between sacred and profane. The French sociologist states that through some techniques – the creation of a dogma, the exclusion of the laymen of theological exegesis, the syncretism of old customary beliefs, and the elaboration of moral dictates – the expert class become institutional. Even if Bourdieu stresses the importance of doctrines, rites and habitus, there is no clear moment when such institutionalization takes place - since it is supposed to come along the urbanization process. This represents a difficulty when doing social research of present uncompleted religious phenomena. In other words, this theory might be helpful to trace the way religion acquired autonomy as social field and to explain how an already-established religious institution can endure through periods social crisis, but is not so effective to understand the religions which are acquiring autonomy. In the case of dataism, for instance, it is still enigmatic what must happen to gather the experts in algorithms to constitute a clergy that guide the laymen in the digital era.

As a corollary, one might recall the late explanation Bourdieu (1987) offers of the 'crisis of religion'. The French sociologist regards the rise of secular soul-healers as the main cause for the lack of the renewals of the religious field and its consequent dissolution of the sacred (Dianteill, 2003). Other secondary causes are larger schooling among the population, the advance of urbanization processes, and the privatization of every-day life. A whole new set of spiritual demands come to place, requiring unprecedented replies for different experts. However, the problem is not whether if Bourdieu's prognosis is correct or not, but the

implications of such predictions. This is the "post-modernist trap" Žižek (1989, 25) condemns: the urge to augur the end of History, Imperialism, Ideology, Capitalism, Religion or Society. Probably, some orthodox sociologist will resist seeing dataism as a novel religion, rather considering it as responsible for the dissolution of the sacred. But this is no different from the archaic views of Hume or Comte, who saw religion as a necessity of civilization to achieve better organizations, until it was no longer required. Evolutionism is a double-side weapon that might naturalize both the birth and death of social phenomena, without considering the particular features of such processes independently from the allegedly progress of civilization.

Second, as a consequence of the previous point, when dataism is defined as religion, authors tend towards a theological comprehension of religion leaving out the social work required to render it possible. See, for instance, how Han (2020) identifies dataism as the antithesis of religion since it encourages individualism. Even Harari (2017, 235), who is not that agonistic to dataism, opposes the introspective spirituality with the collective conventions that shape religion: "Religion is any all-encompassing story that confers superhuman legitimacy on human laws, norms and values. It legitimizes human social structures by arguing that they reflect superhuman laws". I have repeatedly stressed that sociology of religion cannot rely on such definitions, since they limit themselves to provide a normative criterion to designate certain phenomenon as religious if it reunites enough features. This substantialization suggest that dataism – or any other religion – is an autonomous entity or process regardless of the actual actors who brings it to existence in first place.

Curiously, Bourdieu (1971) is aware of the problem of taking religion as a granted sphere of social life, thus calling for a genetic view of how the religious field gained autonomy. But as I have pointed out, the practices Bourdieu (1982) identifies leave out the key moment of institutionalization of the clergy. This ambivalence is due to Bourdieu's adherence to the doctrine of Durkheim of the self-sufficiency of the social. As Latour (1992) rightly criticizes, Durkheim's claim to explain the social from the social usually lead to two mistakes: it stabilizes the social facts as forces disembodied from the agents and, ironically, it covers social interaction with veil of anti-realism. In this case, Bourdieu would argue that there is nothing especially religious in religion, since this is just another form of social convention like science, politics or arts. Also, insti-

tutionalization is an inherent process to the progress of civilization, so there is no need to indicate the agents involved. For a better understanding of how dataism become a religion, it would be helpful to avoid the radical definitions of religion that focus exclusively on its theological dimensions, as well the comprehensions that only accounts for its social presumptions.

This epistemological questioning can be extended to the whole *corpus* of Bourdieu, who was interested in combining a genetic perspective with social structuralism. It is ironic that, despite his plea for historicism, Bourdieu (1972) is not himself very intrigued by the way traditions are invented. Instead, the French sociologist is concerned with the way those traditions generate operative practices. In a rather consequentialist fashion, Bourdieu indicates that this operability is achieved once religion content become the motive of further cultural changes. In other words, once spiritual beliefs lead people to modify their daily actions, religion have transcended the representational status and reached a higher pragmatic level. This might be seen as a potential link between Bourdieu's theory and the predominant social constructionism of Anglophone social sciences (Berger and Luckmann, 1966; Bloor, 1976). Unfortunately, by exchanging historical sensitivity for the focus of pragmatism of cultural representations, sociology becomes peculiarly incompetent for understanding technology phenomena. As Woolgar (2002) criticizes, if social interaction is embedded in symbols and power relations, regardless of their ontological and performative effects, there would not no difference between analogous and digital interaction – mere conventions oriented to preserve social order. This is why many scholars dedicated to dataism fail to see the implications of digital practices, the reality of technological devices and the beliefs in algorithms. In short, social constructionism in its entire spectrum – going from historical sociology (Harari, 2017) to genetic structuralism (Bourdieu, 1980) – cannot deliver a proper interpretation of dataism.

Conclusion

In this paper I have presented dataism as an emergent religious phenomenon. Against the main tendency to define it as ideology, I argue for a comprehension that highlights the digital practices and beliefs already embedded in contemporary society. In order to support this thesis, I reconstructed the

sociology of religion proposed by Pierre Bourdieu to craft a ten-item list to approach religious phenomena. This included key concepts such as the constitution of the clergy, the distribution of habitus among population and the articulations between religious and non-religious fields. Then I adventured a preliminary interpretation of dataism underlying the central figures that create and supply spiritual demands, the worldview entailed in the trust in algorithm, and the moral dictates derived from the dogma of freedom of information. However, some difficulties appeared in this tentative exploration of dataism. First, the need to further elucidate the actors involved in the institutionalization of the clergy. Dataism has not yet constituted a religious expert class - and it is not clear if such event will happen. Second, virtuality challenges our common understanding of how cohesive locations and temporalities are required to perpetrate the habitus and rites. Since online dynamics are obliquely located and tend to blend the difference between synchronic and diachronic interaction, digital practices are not conformed in the usual way. Thirdly, due to some epistemic presumptions, traditional sociology – including Bourdieu – fail to account for the actions of technological devices and the religiousness contained in dataism. A wider theoretical stand, including specific features of religion and the ontological dimension of technology might be helpful.

This theoretical exploration should pave the way for future empirical researches about dataism. I support the conceptualization of dataism as religion, since it contemplates elements not easily found in ideology or other social conventions. Sociology of religion can help elucidate the way digital technology is re-configuring our daily lives and the way different institutions are shifting. Dataism is still an emerging religion not completely deployed, yet we should pay attention to the already present beliefs, doctrines and practices it provokes before a fully 'Church of Data' appears into scene. There is no need to outlaw neither digital technologies nor religion. What is peremptory is to carefully reflect about their encounter and the role humans play in such process. There is no sealed faith for humanity under the age of Big Data, unless we negligently ignore dataism. Dataism can – and most surely will be – a powerful force to change society, and it is our responsibility to understand such force and learn how to coexist with it.

References

- Allpress B. (2011) Pedagogical frameworks for emergent digital practices in architecture. In *Distributed Intelligence in Design*, eds. Tuba Kocattürk and Benachir Medjdoub. Oxford: Wiley-Blackwell, pp. 51-70.
- Berger P. L. and Luckmann Th. (1968) *The Social Construction of Reality*. Garden City: Anchor Books.
- Bloom I. (2006) Freedom of Information Laws in the Digital Age: The Death Knell of Information Privacy. *Richmond Journal of Law & Technology*, no 12(3), pp. 1-64.
- Bloor D. (1976) *Knowledge and Social Imagery*. Chicago: The University of Chicago Press.
- Bourdieu P. et Saint-Martin M. (1982) La sainte famille. L'épiscopat français dans le champ du pouvoir. *Actes de la recherche en Sciences Sociales*, no 45, pp. 2-53.
- Bourdieu P., Chamboredon J-C. et Passeron J-C. (1973) *Le métier de sociologue*. Paris: École Pratique de Hautes Études.
- Bourdieu P. (1968) Structuralism and Theory of Sociological Knowledge. *Social Research*, no 35, pp. 680-706.
- Bourdieu P. (1971) Genèse et structure du champ religieux. *Revue Française de Sociologie*, no 12(3), pp. 295-334.
- Bourdieu P. (1972) *Esquisse d'une théorie de la pratique*. Genève: Droz Éditions.
- Bourdieu P. (1980) *Le sens pratique*. Paris: Minuit.
- Bourdieu P. (1982) Les rites comme actes d'institution. *Actes de la recherche en Sciences Sociales*, no 43, pp. 58-63.
- Bourdieu P. (1987) *Choses dites*. Paris: Minuit.
- Briscoe G. and De Wilde P. (2006) Digital Ecosystems: Evolving Service-Oriented Architectures. In *Proceedings of the 1st international conference on Bio inspired models of network, information and computing systems*, eds. Tatsuya Suda and Christian Tschudin, 17-24. New York: ACM Editors.
- Brito R., Francisco R., Dias P & Chaudron S. (2017) Family Dynamics in Digital Homes: The Role Played by Parental Mediation in Young Children's Digital Practices Around 14 European Countries. *Contemporary Family Therapy*, no 39, pp. 271-280.
- Brooks D. (2013) The Philosophy of Data. The New York Times, February 4. <https://www.nytimes.com/2013/02/05/opinion/brooks-the-philosophy-of-data.html>
- Butler T. (2003) An institutional perspective on developing and implementing intranet- and internet- based information systems. *Information Systems Journal*, no 13, pp. 209-231.
- Campiño R., Carlos G. (2018) Patologías educativas de época. entre hipermodernidad, dataismo y necroneoliberalismo. In *Actas del Congreso Iberoamericano de Docentes*, art. 273. Cádiz: Editorial Asociación Formación IB. Retrieved from: <http://congreso.formacionib.org/273.pdf>
- Collins H. (1990) *Artificial Experts. Social Knowledge and Intelligent Machines*. Cambridge: MIT Press.
- Cotino L. (2019) Riesgos e impactos del Big Data, la inteligencia artificial y la robótica. Enfoques, modelos y principios de la respuesta del derecho. *Revista General de Derecho Administrativo*, no 50, pp. 1-37.
- Dianteill E. (2002). Pierre Bourdieu et la religion. Synthèse critique d'une synthèse critique. *Archives des Sciences Sociales des religions*, no 118, pp. 5-19.
- Dianteill E. (2003) Pierre Bourdieu and the sociology of religion: A central and peripheral concern. *Theory and Society*, no 32(5/6), pp. 529-549.
- Han B-C. (2017) *Psychopolitics: Neoliberalism and New Technologies of Power*. London: Verso.
- Han B-C. (2020) *The Disappearance of Rituals. A Topology of the Present*. Cambridge: Polity Press.
- Harari Y. N. (2017) *Homo Deus. A Brief History of Tomorrow*. London: Vintage.
- Hardt M. and Negri A. (2000) *Imperio*. Cambridge: Harvard University Press.
- Holmes D. E. (2017) *Big Data. A very short introduction*. Oxford: Oxford University Press.
- Kondratenko Y. (2019) The role of big data and industrial Internet of things in society Transformation. In *Desafíos de la Nueva Sociedad Sobrecompleja: Humanismo, Transhumanismo, Dataismo y otros Ismos. XIII Acto Internacional de la Real Academia de Ciencias Económicas y Financieras*, coord. Anna María Gil-Lafuente. Barcelona: Editora Real Academia de Ciencias Económicas y Financieras, pp. 201-217.
- Kuhn Th. (1982) Commensurability, Comparability, Communicability. In *PSA: Proceedings of the Biennial Meeting of the Philosophy of Science Association*. Chicago: University Chicago Press, pp. 669-688.
- Lankshear C., Araya D. and Knobel M., eds. (2018) *Augmented Intelligence: Smart System and the Future of Work and Learning*. Lausanne: Peter Lang Incorporated.
- Latour B. (1992) One More Turn after the Social Turn: Easing Science Studies into the Non-Modern World. In *The Social Dimensions of Science*, ed. Ernan McMullin. Notre Dame University Press: Notre Dame, pp. 272-292.
- Lohr S. (2015) *Data-ism: The Revolution Transforming Decision Making, Consumer Behavior, and Almost Everything Else*. London: Harper Business.
- Margaryan A., Littlejohn A. and Vojt G. (2011) Are digital natives a myth or reality? University students' use of digital technologies. *Computers & Education*, no 56(2), pp. 429-440.
- McIntosh E. (2015) Belonging without Believing. Church as Community in an Age of Digital Media. *International Journal of Public Theology*, no 9(2), pp. 131-155.
- Nagy P. and Koles B. (2014) The digital transformation of human identity: Towards a conceptual model of virtual identity in virtual worlds. *Covergence*, no 20(3), pp. 276-292.
- Passeron J-C. at Revel J., eds. (2005) *Penser par cas*. Paris: Éditions de l'École des hautes études en sciences sociales.
- Peters T. (2017) The Deluge of Dataism: A New Post-Human Religion? *Dialogue: A Journal of Theology*, no 56(3), pp. 211-213.

- Provost F. and Fawcett T. (2013) Data Science and its Relationship to Big Data and Data-Driven Decision Making. *Big Data*, no1(1), pp. 51-59.
- Rybas N. and Gajjala R. (2007) Developing Cyberethnographic Research Methods for Understanding Digitally Mediated Identities. *Forum Qualitative Sozialforschung*, no 8(3), pp. 35.
- Sykes J. M. (2019) Emergent Digital Discourses: What Can We Learn From Hashtags and Digital Games to Expands Learners' Second Language Repertoire? *Annual Review of Applied Linguistics*, no 39, pp.128-145.
- Van D. J. (2014) Datafication, dataism and dataveillance: Big Data between scientific paradigm and ideology. *Surveillance & Society*, no12(2), pp. 197-208.
- Viaene S. (2013) Data Scientist Aren't Domain Experts. *IT Professional*, no 15(6), pp. 12-17.
- Virilio P. (1986) *Speed and Politics: An Essay on Dromology*. New York: Semiotexte.
- Vyshnevskiy O. (2019) Unity of digital and virtual economies within concept of dataism. *Virtual Economics*, no 2(3), pp. 7-21.
- Woolgar S. (2002) *Virtual Society? Technology, Cyberbole, Reality*. Oxford: Oxford University Press.
- Žižek S. (1989) *The Sublime Object of Ideology*. London: Verso Books.