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DOCTORAL THESIS

- SUMMARY -

Online debates on economic theory pertaining to international
economic relations

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Keywords

International economic relations, economic theory, debates on international economic relations, debates on economic theory, economic theory related to international economic relations, online debates on economic theory related to international economic relations.

Introduction

From the beginning of international economic transactions, the debates related to economic theory regarding international economic relations were not without controversy. On the contrary, even the first modern currents of thought were in clear antithesis, the recommended public policy approaches being diametrically opposed.

Thus, mercantilism, which is the first relevant current of thought in terms of international economic relations, is dominated by an adversarial approach, with international economic transactions being seen as a zero-sum game, in which it is necessary to have a loser so that one party can win. Therefore, the tendency to design strong public protectionist policies is not at all surprising, with imports being seen as a vulnerability to the economy and exports perceived as the only solution for prosperity.

The classical English school of thinkers such as Adam Smith, David Ricardo and John Stuart Mill proposes an antithetical perspective on international trade, Adam Smith through the *Wealth of Nations* of 1776 articulating and arguing ideas in the spirit of perceiving international trade as a powerful generator of win-win situations. In his view, autarchic approaches were a far inferior solution to trade based on the so-called absolute advantage, Adam Smith considering it appropriate to create public policies on international trade aimed at capitalizing on the economic advantage of each economic partner in terms of unity of work to produce a certain good.

But the comparative advantage would also show its limits, relevant in this respect being the situations in which a certain country lacked the absolute advantages in the relationship with a partner, limits all the more relevant in the context of the first industrial revolution and colonial relations. An alternative would be provided by a current of thought associated with David Ricardo but for which the work of Robert Torrens through his *Essay on Foreign Trade in Cereals* of 1815 was deeply relevant, the comparative advantage justifying trade-enhancing policies even in the absence of an absolute advantage.

Thus, in the context of a reality dominated by the finite nature of commodities, of which time was the main element, it was necessary to identify situations in which a dominant economy imports goods in which superiority over a particular partner was minimal, thus allocating resources toward cases where superiority was pronounced.

Although unable to provide a universally valid and infallible perspective on the forces governing international economic relations, the Ricardian model was largely able to provide a coherent explanatory framework. However, the neoclassical school of thought has moved away from some aspects of the model such as the tendency to look at the value of a product from a work-unit perspective, especially in an international context which, after the first industrial revolution, revealed large productivity gaps. especially when comparing countries that have adopted policies aimed at maximizing industrialization results such as European powers with countries like China, which have been overly skeptical, with disastrous economic and geopolitical results.

In other words, a country's share of the global economy ceased to be primarily a function of population, as was the case at the time of the first industrial revolution, with extensive databases such as the Angus Maddison database being relevant. Also, the degree of complexity of an economy shows a pronounced upward trend, illustrated by realities such as the decline in the share of agriculture in the economy as the effects of the industrial revolution were felt. Therefore, the degree of complexity and nuance of international economic debate has also undergone adjustments.

A growing complexity in an often exponential manner, in clear antithesis with the predominantly linear manner in which various systems can or cannot keep up, from education systems to various organizations whose purpose revolves around objectives such as combating the spread of false information.

In the vacuum thus created, it is easy for various undesirable actors to infiltrate themselves, actors who, as illustrated in this paper through Chapter 2, have often proved better able to capitalize on various opportunities, taking advantage of algorithmic imperfections in in order to achieve their objectives in the field of manipulation and misinformation, without the aforementioned systems for combating the spread of false information being able to control such phenomena.

It is difficult to envision a long-term solution that does not contain a strong component in the field of better understanding of all that online debate entails, in the case of this paper especially the online debate of economic theory on international economic relations. All the more so in the context of the realities of the third millennium, in which examples of situations that make clear the impact of online debate on public policies pertaining to international economic relations abound.

One such example is represented by public pressure, especially through vehicles such as social media platforms, to sanction the Russian Federation as aggressively as possible in the aftermath of its decision to invade Ukraine in early 2022. Public pressure so effective that it has led to unprecedented post-Cold War policies in countries such as Germany, including policies pertaining to the increase in defense spending or sanctions on key areas such as energy.

Given the asymmetric risks related to the dissemination of information facing society and the potential as well as actual consequences of public policies in the field of international economic relations, a detailed analysis of online debate pertaining to economic theory in this regard is required and represents the aim of this paper.

Thus:

- Through Chapter 1, some of the most important debates surrounding economic theory regarding international economic relations have been reviewed.
- Through Chapter 2, the indicators through which the major debates of the present are conducted have been analyzed (mainly online debates, with social media platforms in the forefront as vehicles for disseminating information), indicators which facilitate the quantification of their impact.
- Through the case study to which Chapter 3 was dedicated, a case study based on data from the One Minute Economics economic education YouTube channel, the manner in which the controversial or non-controversial nature of the content can influence the public's willingness to debate a a certain topic online, the public's willingness to disseminate a certain material online and the public's willingness to express emotional reaction to a certain material have been analyzed

Understanding the debates addressed in Chapter 1 in the light of the technological realities of the present illustrated through Chapter 2 and the behavioral realities illustrated through the case study of Chapter 3, it was possible to articulate the final conclusions of this paper. Especially the primary conclusion that an online debate scene pertaining to international economic relations dominated by the fear of controversy becomes a space of sub-optimal performance.

The status of knowledge

This paper addresses a very complex topic, with a well-defined goal: to improve the framework in which the exchange of ideas on economic theory related to international economic relations is currently taking place. An exchange of ideas carried out increasingly (but not exclusively) online, in a context dominated by increasing polarization due to various recent exogenous shocks (the COVID-19 pandemic, the war in Ukraine, etc.).

Controversies, on the other hand, have (almost) always been present.

For example, the ideas of François Quesnay's 18th century physiocrats on the privileged status of agriculture¹ or the fears of the Luddites² pertaining to the endangerment of jobs after the first industrial revolution. Two examples which show that the crowning of an economist's career and the recognition of its importance do not depend exclusively on the empirical validation or invalidation of the ideas articulated throughout that career, the contribution of the economist as a thinker to major debates, regardless of position, being vital.

The Bander and Spencer model is also illustrative in this sense³ as the first reference model for protectionism in the sphere of the new theory of international trade, addressing issues related to protectionism that had been addressed from both the Ricardian and HOS perspectives. As in the case of other similar debates on economic theory related to international economic relations, it is inappropriate to use terms tangent to the idea of finality, with it being particularly important to continue debates in a healthy environment.

¹Quesnay, F. (1757). "Grains". Encyclopedia of Diderot and d'Alembert.

²Binfield, K. (2004). Luddites and Luddism. Baltimore and London, respectively: The Johns Hopkins University Press.

³Rainelli, M. (2004). The New Theory of International Trade. Chisinau: ARC Publishing House.

Unfortunately, this healthy framework has often been lacking, a reality revealed by debates such as those between Carl Menger⁴ and Gustav Schmoller, debates that led to animosities which do not honor the economic science, such as Schmoller's refusal to publish new articles by Menger and his desire to marginalize Menger's disciples who wanted to hold university positions. The effects, as T.W. Hutchinson noted in 1973⁵, were not among the most fortunate in terms of the idea of productive debates pertaining to economic theory on international economic relations.

But there is no room for fatalism, especially since economics is still a young science, with only approximately 300 years after the death of the first author of an economic treatise⁶ passing and not much more than 100 since the establishment of the first superior education facility⁷. It is somewhat to be expected that controversy will be present in a science that is on the one hand young but on the other hand pertains to:

- Human concerns so old that their origins coincide with the origins of writing, with the first Sumerian writings being practically artifacts of primitive management, more precisely barley measures⁸
- Concerns pertaining to the economic dimension of the future, in other words transposition into economic theory of the ideas of futurologists such as Michio Kaku⁹, Neil deGrasse Tyson¹⁰ or Stephen Hawking¹¹. It is very likely that a reading of an essay in the field of futurology will reveal problems of an economic nature, from aspects pertaining to the relatively near future such as the extraction of asteroidal precious metals to multi-

⁴Alter, M. (1990). Carl Menger and the Origins of Austrian Economics. Boulder, Colorado: Westview Press.

⁵Hutchinson, TW (1973). Some Themes from Investigations into Method in Carl Menger and the Austrian School of Economics. Oxford: Clarendon Press.

⁶Cantellion, R. (2001). Essay on the Nature of Commerce in General. New Jersey: Transaction Publishers.

⁷Pressman, S. (2006). Fifty Major Economists, Third Edition. London: Routledge.

⁸Harari, YN (2017). Sapiens. Bucharest: Polirom.

⁹Kaku, M. (2018). The Future of Humanity. New York City: Doubleday.

¹⁰DeGrasse Tyson, N. (2017). Astrophysics for People in a Hurry. New York City: WW Norton & Company.

¹¹Hawking, S. (2018). Brief Answers to the Big Questions. London: Hodder & Stoughton.

generational goals such as the leap from mono-planetary to multi-planetary species. , with the subsequent economic consequences

Returning to the present, it is impossible to overlook the fact that the work of economists and the major debates on economic theory in the field of international economic relations have given rise to a wide range of contributions, which have facilitated experiments involving various public policies pertaining to international relations, eloquent in this respect being:

- The mercantilism of the seventeenth and eighteenth centuries, in the foreground being the maritime trade transactions of England, the Netherlands and other powers. A mercantilism that can be seen as capitalism in its infancy, with the mention that economic transactions were far from exclusively coordinated by markets. On the contrary, examples of limits placed on markets are easily identifiable, such as the privileged position of large economic players such as the East India Company in terms of trading rights or the various monopolies that existed
- Critics of mercantilism were not absent, including or especially Adam Smith, whose commercial capitalism described by the quail needle factory found in the Wealth of Nations was in turn replaced by industrial capitalism in a paradigm that followed the first industrial revolution, involving business with hundreds of employees in a context of intensive mechanization. An industrial revolution that marks the transition from productivity models as a simple function of population (with the Angus Maddison database containing data on developments over a period of not centuries, but millennia)
- Continuing chronologically but remaining in the realm of controversy, it should be noted that not all geopolitical players have embraced new developments in technology, with the worst consequences having conservative countries in this regard such as China in the forefront. However, despite the empirical validation of public policies on international economic relations that embraced the technological developments of the first industrial revolution, there was no shortage of criticism.

Critics such as Karl Marx, who sanctioned the unequal manner in which newly acquired prosperity was distributed, GNP-adjusted increases of about 450% in the 1750-1930 period in developed countries leading to problems pertaining to lack of equity

- Nor has the idea of a market economy proved to be a universal panacea, illustrated by the cyclical recessions, including extremely severe recessions such as the one in 1929. A recession after which Franklin Delano Roosevelt's New Deal rethought the relationship between the state and markets, in stark contrast to Hoover's policies.

Markets were thus more regulated, interventionism becoming pronounced in some instances, a reality illustrated by the increases involving the share of federal, state and local government from about 10% before the crisis of 1929 to a third of GNP in the 1970s

- Nor should the debates on public policies adopted as a result of the tendency of large economic players to cartelize themselves be ignored, public policies through which the aim was to counter monopolies in the context of industrialization, with all the consequences thereof
- Regarding the issue of globalization, humanity's experiments with the idea of increasing collaboration between countries is not new. But in a context of exponential technological evolution, with both positive (productivity) and negative (weapons of mass destruction) consequences, this idea has taken off for a wide variety of reasons, from maximizing results through cooperation to avoiding conflicts by creating a system of interdependence.

With the Marshall Plan as a first example in this regard, followed of course by the formation of the European Union, with its integration/cohesion policies. Examples from outside Europe include post-Mao China and double-digit growth rates that have become standard by 2010, a wide range of issues such as demographics or more recently pandemic management¹² leading to present-day challenges.

¹²Govindasamy, P. and Shankar, KU (2020). Covid-19 And Global Financial Markets With Special Focus To Gdp Growth Projection, Capital Mobilization And Performance Of Stock Market. Volume XI, Issue VII, 1-9.

Even so, this socialism with Chinese characteristics practiced by various leaders starting with Deng Xiaoping and continuing with the policies of the following leaders turned China into perhaps the main beneficiary of globalization, despite the particularities of each regime (a greater affinity for economic growth of Jiang Zemin, Hu Jintao's social policies, etc.)

- Of course, in order to return to the realm of controversy, globalization has always faced vocal criticism. Moreover, the strong forces of deglobalization cannot be overlooked¹³, especially in a post-pandemic context (with the weaknesses of the distribution chains illustrated by the COVID-19 pandemic) and the war between Ukraine and the Russian Federation

As the above list reveals, the great debates on economic theory in the sphere of international economic relations are far from settled. And no matter how events unfold worldwide, the role of these debates will be vital.

It is impossible to accurately predict what the future holds. What is certain is that regardless of the direction in which humanity will evolve, the role of economic theory in shaping public policies on international economic relations will remain special. Equally, there is a quasi-certainty that social media platforms¹⁴(the Web 2.0 phenomenon) will play an important role in this equation.

As chapters 2 and 3 reveal, these platforms transform the visitor from a simple consumer of content (the primarily passive consumer of the Web 1.0 paradigm and even more so of the pre-internet paradigm) into the involved consumer. A consumer who debates the subject through comments, propagates a certain material through shares and can manifest his/her emotional reaction to that material, with the resulting consequences.

¹³Ripsman, NM (2021). Globalization, deglobalization and Great Power politics. *International Affairs*, 97 (5), 1317-1333.

¹⁴France, RP, Monteiro, ACB, Arthur, R. and Iano, Y. (2021). An Overview of Web 2.0 and its Technologies and their Impact in the Modern Era. *Handbook of Research on User Experience in Web 2.0 Technologies and Its Impact on Universities and Businesses*, 73-93.

These consequences make this paper possible, among other things, as content creators such as One Minute Economics are provided with a wide range of data that enables them to analyze the manner in which the online debate on economic theory regarding international economic relations takes place.

Debates and controversies in the field of economic theory regarding international economic relations

In the context of politico-ideological politicization¹⁵ that is easily identifiable today, this paper aims to facilitate a better understanding of the manner in which the content receptor relates to economic theory in the field of international economic relations in a technological framework marked by the dominance of the social media phenomenon. An even more important dominance given the current geopolitical volatility, with consequences for example regarding strategies related to economic relations with the Russian Federation post-2014¹⁶, illustrating that the growing influence of social media platforms as a vehicle for channeling public pressure cannot be ignored.

Social media as an increasingly influential channel for debating economic theory in the field of international economic relations is indisputably an element of novelty, but the heated debates and controversies themselves are not at all such an element. In order to review the most important such major debates, it is reasonable to set the work of Adam Smith and his absolute advantage as a starting point, in response to mercantilist policies he deeply criticized. But the absolute advantage did not lack criticism and alternatives, especially the comparative advantage of David Ricardo. Ideas that are still generating intellectual disputes today.

Schumacher¹⁷ considers still applicable in many areas, including in a corporate context, the ideas of Smith's absolute advantage, praising him for contributions that allow a robust analysis of

¹⁵Rekker, R. (2021). "The nature and origins of political polarization over science." Public Understanding of Science. <https://doi.org/10.1177%2F0963662521989193>.

¹⁶Aslund, A. and Snegovaya, M. (2021). "The impact of Western sanctions on Russia and how they can be made even more effective." Atlantic Council. <https://www.atlanticcouncil.org/wp-content/uploads/2021/05/The-impact-of-Western-sanctions-on-Russia-and-how-they-can-be-made-even-more-effective-5.2.pdf>.

¹⁷Schumacher, R. (2012). Adam Smith's theory of absolute advantage and the use of doxography in the history of economics. Erasmus Journal for Philosophy and Economics, 5 (2), 54-80.

technological and production change. Smith should also be commended for his dynamic approach to looking at changes in production and technology in the context of macroeconomic change. Palley¹⁸, instead, praises the comparative advantage, considering the term a fluid one. Thus, influences are manifested as a result of macroeconomic changes, for example changes in the dynamics of supply and demand or the manner in which the various benefits of international trade are distributed.

It is easy to see that the way thinkers in the field of economics relate to theories such as the absolute advantage and comparative advantage have evolved with the global economy and perhaps especially both new technologies and our ability to disseminate them (Peng and Meyer¹⁹). By virtue of this reality, global economic actors collaborate in the proper implementation of various international, national and local policies (Madhok, Li and Priem²⁰).

Technological development and geopolitical changes, on the other hand, come with scenarios that reveal the limitations of these theories. For example, intra-industrial trade between structurally similar countries that trade the same type of goods between them (the western countries of the European Union and the economic relations between them being a relevant case study in this respect), which cannot be explained by the paradigm of comparative advantage²¹.

Moreover, these debates must also be viewed by virtue of the role that the state is willing or unwilling to assume, for example governments that compensate through public policies in order to correct certain disadvantages, such as India²². In terms of information technology, public

¹⁸Palley, TI (2008). Institutionalism and new trade theory: Rethinking comparative advantage and trade policy. *Journal of Economic Issues*, 42 (1), 195-208.

¹⁹Peng, M., & Meyer, K. (2016). *International business*. Hampshire, UK: Cengage.

²⁰Madhok, A., Li, S., & Priem, RL (2010). The resource-based view revisited: Comparative firm advantage, willingness-based isolating mechanisms, and competitive heterogeneity. *European Management Review*, 7 (2), 91-100.

²¹Dev Gupta, S. (2015). Comparative Advantage and Competitive Advantage: An Economics Perspective and a Synthesis. *Athens Journal of Business & Economics*, 1 (1), pp.9–22. doi: 10.30958 / ajbe.1-1-1.

²²Porter, ME (1998). Clusters and the New Economics of Competition. [online] Harvard Business Review. Available at: <https://hbr.org/1998/11/clusters-and-the-new-economics-of-competition>.

policies have led to significant investment in this sector²³, representing adjuvant factors. It is important to point out that economic theory regarding international economic relations cannot overlook the problems of developing or underdeveloped countries through attention paid exclusively to developed economies. Thus, ideas such as Hall's²⁴ have emerged, according to which exports made under the comparative advantage principle lead to improved living standards.

With these developments and the growing share in the global economy of countries such as China and India, the increasing complexity of controversies in the field of economic theory on international economic relations poses a number of problems related to the articulation and calibration of policies to satisfy the needs of all relevant geopolitical actors, especially policies in key areas such as energy in the context of environmental protection objectives and their applicability in a wide range of jurisdictions with often diametrically different economic realities.

In response to these realities, Bertil Ohlin and Eli Heckscher laid the foundations of a theory that, in the perspective of Paul Krugman²⁵ for example, disparities in the endowment of relative factors of nations were the source of comparative advantage (relative endowment of factors). They consider that the comparative advantage is not generated by differences in productivity between different industries (Ricardian theory) but by differences in the intensity of factors in various sectors or differences in the scope of access to components (capital intensity on the one hand and workforce-factor intensity on the other).

But neither this model lacked criticism nor empirical invalidation, illustrative in this respect being Wassily Leontief's 1954 experiment, the mathematical model of input/output factors in the Canadian economy developed by him leading to the Leontief paradox, namely the realization that export-oriented enterprises had a lower workforce intensity ratio than those focused on imports, explanations of thinkers such as Ghamari²⁶ suggesting that issues such as the solid technical

²³Dong, B. and Wong, S. (2016). A Theory of Comparative Advantage with Specialized Subnational Regions. *Review of International Economics*, 25 (3), pp.567–577. doi: 10.1111 / roie.12274.

²⁴Hall, PA (2013). *Varieties of capitalism: the institutional foundations of comparative advantage*. Oxford: Oxford University Press.

²⁵Krugman, P. (2008). *Scale Economies, Product Differentiation, and the Pattern of Trade*. [Online] Available at: <https://www.aeaweb.org/aer/top20/70.5.950-959.pdf> [Accessed 3 June. 2022].

²⁶Ghamari, J. (2008). *Conceptualization of Competitive Advantage and Sustainable Competitive Advantage, the Question of Diversity*. *SSRN Electronic Journal*. doi: 10.2139 / ssrn.1673322.

expertise of the population or, more broadly, the consequences of public policies on investment in research and development (multiple factor effect) are crucial. What is certain is that, as Porter mentioned²⁷, a variety of methods and explanations need to be analyzed in order to articulate conclusions on such complex topics.

This complexity is compounded by the great challenges of the present in the online debate of economic theory on international economic relations in the context of democratization²⁸ in terms of access to resources that make it easier not only to consume content but also to publish it. The boundary between the emitter of opinion and the recipient of opinion is a particularly volatile one, and a non-linear evolution²⁹ of communication technology by often abruptly changing pre-internet conditions unfortunately making it not only possible but also increasingly easy to propagate manipulative and/or false information. Although there are entities formally responsible for public policy in the field of information dissemination, they are often outdated³⁰ and capable, at most, of developing linearly.

Moreover, the reality that this state of affairs has given rise to a new field of conflict, the information field, cannot be ignored.³¹ Malicious actors are often better-adapted to new technological realities than those in good faith on the one hand and entities meant to combat these dangers on the other. This paper represents both an alarm signal and an approach that illustrates the manner in which online debates on economic theory in the field of international economic

²⁷Porter, ME (1980). Industry Structure and Competitive Strategy: Keys to Profitability. *Financial Analysts Journal*, 36 (4), pp.30–41. doi: 10.2469 / faj.v36.n4.30.

²⁸ Andrade-Vargas, L., Iriarte-Solano, M., Rivera-Rogel, D. and Yunga-Godoy, D. (2021). "Young people and social networks: Between the democratization of knowledge and digital inequality". *Communicate*. <http://eprints.rclis.org/42714/>.

²⁹ Bongomin, O., Ocen, GG, Nganyi, EO, Musinguzi, A. and Omara, T. (2020). "Exponential Disruptive Technologies and the Required Skills of Industry 4.0. *Journal of Engineering*. <https://doi.org/10.1155/2020/4280156>.

³⁰ Horne, C. (2021). "Internet governance in the post-truth era: Analyzing key topics in fake news discussions at IGF." *Telecommunications Policy*. July 2021. <https://doi.org/10.1016/j.telpol.2021.102150>.

³¹ Wallworth, A. (2021). "Russian Exports: Weaponized Social Media, Cyber-Enabled Disinformation." *Utica College*. <https://www.proquest.com/openview/0659fdd31ab5af1dafd8b564df477f52/1?pq-origsite=gscholar&cbl=18750&diss=y>.

relations take place on the one hand, and on the other hand can be better understood but also kept in check.

Achieving these objectives is possible through approaches revolving around the scientific method, from the theoretical considerations of Chapter 2 to case studies³² applied this time to the online dimension, such as the one in Chapter 3. It is also necessary to articulate the idea that social media platforms that have made and make possible misinformation on a large scale also come up with solutions to combat³³ or at least identify these problems.

By virtue of these realities, calculated optimism has its place, provided there is a growing openness toward accepting the idea that the major debates in the field of economic theory on international economic relations will persist (and with them the degree of controversy) on the one hand and on the other hand, the idea that these debates will increasingly take place in the online environment.

The online dimension of debates with respect to economic theory on international economic relations

The online dimension of the debates in the field of economic theory regarding international economic relations, with the social media component in the foreground, is mainly characterized by the fact that, as the name social media suggests, it is easy to see the overlap of the social dimension³⁴ over the content propagation one, which facilitates the interaction with content.

Including within the YouTube channel One Minute Economics and based on the data related to it, the case study of chapter 3 was carried out. The collection of this data was possible thanks to Google Analytics technology, which allows both content creators on YouTube other categories of content creators³⁵ to quantify the manner in which content recipients perceived the various

³²Miron, D., Cojanu, V., Volintiru, CA and Alexioaei, AP (2017). *International Economic Relations - Theories, strategies, tools and case studies*. ASE Publishing.

³³Dame Adjin-Tettey, T. (2022). "Combating fake news, disinformation, and misinformation: Experimental evidence for media literacy education." *Cogent Arts & Humanities*. <https://doi.org/10.1080/23311983.2022.2037229>.

³⁴Aichner, T., Grunfelder, M., Maurer, O. and Jegeni, D. (2021). "Twenty-Five Years of Social Media: A Review of Social Media Applications and Definitions from 1994 to 2019". *Cyberpsychology, Behavior and Social Networking*. <https://doi.org/10.1089/cyber.2020.0134>.

³⁵Domazet, IS and Simovic, VM (2020). "The Use of Google Analytics for Measuring Website Performance of Non-Formal Education Institution". *Handbook of Research on Social and Organizational Dynamics in the Digital*

published materials. This data analysis allows the shaping and optimization of strategies ranging from ethical approaches to unethical options³⁶, again emphasizing the reality that malicious actors have often proved better-adapted to the technological realities of the beginning of the third millennium than the well-meaning ones.

This paper and similar approaches can balance this scale by contributing to a better understanding of online debates on economic theory in the field of international economic relations, one facilitated by the analysis of the indicators mentioned in Chapter 2 of the paper (and through which the Chapter 3 case study has been conducted): positive assessments, negative assessments, number of comments and number of shares.

Even taken exclusively individually, indicators can provide essential information for a good understanding of how content recipients have perceived a particular material: comments as the ultimate indicator of the availability of content recipients to debate a particular topic, positive and negative assessments as supreme indicators of the availability of content receptors to manifest their emotional reaction to a particular material and shares as the supreme indicator of the availability of content receptors to propagate the message.

In order to carry out the case study in Chapter 3, emphasis was also placed on the idea of analyzing the relationships between indicators, in this case the ratio between the number of positive assessments and the number of negative assessments. Thus, two relevant categories for the case study were outlined: on the one hand the non-controversial content (in which case at least 95% of the assessments were positive), and on the other hand the controversial content (in which case fewer than 95% of the assessments were positive).

Through the case study, an attempt was made to create a coherent framework through which the controversial and non-controversial content of the YouTube channel One Minute Economics (a YouTube channel that facilitates economic education) can be achieved. In order to facilitate the achievement of the objective of the paper:

Era.<https://www.igi-global.com/chapter/the-use-of-google-analytics-for-measuring-website-performance-of-non-formal-education-institution/234555>.

³⁶Goerzen, M. and Coleman, G. (2022). "Wearing Many Hats". Data & Society.https://datasociety.net/wp-content/uploads/2022/03/WMH_final01062022Rev.pdf.

- 1) A clear differentiation criterion was chosen, in this case the ratio between positive and negative emotional reactions, the content being, based on this ratio, considered either controversial or non-controversial.
- 2) The performances of One Minute Economics content were analyzed using the individual indicators covered in Chapter 2, a performance then compared to the average performances of the channel.
- 3) It was concluded that the differences between the performance of non-controversial content and the mean are statistically significant, a series of one sample t-tests being performed using SPSS. In subchapter 3.3, the results on the public's willingness to debate were discussed, in subchapter 3.4 the results pertaining to the availability to disseminate the material and in subchapter 3.5, the results pertaining to the willingness to express an emotional reaction.

The conclusion that the differences in the willingness to debate are statistically significant are supported by Figures 3.3 and 3.4:

Figure 3.3: One-Sample Statistics (SPSS)

	N	Mean	Std. Deviation	Std. Error Mean
Comments_added	90	5.31	6,936	.731

Source: SPSS analysis based on Google Analytics reports provided through YouTube Studio, related to the One Minute Economics account

Figure 3.4: One-Sample Test (SPSS)

Test Value = 6,798

	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Comments_added	-2,034	89	.045	-1,487	-2.94	-.03

Source: SPSS analysis based on Google Analytics reports provided through YouTube Studio, related to the One Minute Economics account

The conclusion that the differences with respect to the willingness to spread the message are statistically significant is supported by Figures 3.6 and 3.7:

Figure 3.6: One-Sample Statistics (SPSS)

	N	Mean	Std. Deviation	Std. Error Mean
Shares	90	21.80	45,644	4,811

Source: SPSS analysis based on Google Analytics reports provided through YouTube Studio, related to the One Minute Economics account

Figure 3.7: One-Sample Test (SPSS)

Test Value = 48.92

	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Shares	-5,637	89	.000	-27,120	-36.68	-17.56

Source: SPSS analysis based on Google Analytics reports provided through YouTube Studio, related to the One Minute Economics account

Finally, the conclusion that there is a statistically significant difference with respect to the total emotional reactions is supported by Figures 3.9 and 3.10:

Figure 3.10: One-Sample Test (SPSS)

Test Value = 44.42

	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Total_Interactions	-5,029	89	.000	-14,120	-19.70	-8.54

Source: SPSS analysis based on Google Analytics reports provided through YouTube Studio, related to the One Minute Economics account

Figure 3.9: One-Sample Statistics (SPSS)

	N	Mean	Std. Deviation	Std. Error Mean
Total_Interactions	90	30.30	26,634	2,807

Source: SPSS analysis based on Google Analytics reports provided through YouTube Studio, related to the One Minute Economics account

Following a replicable approach based on clear criteria, it was possible to articulate three conclusions regarding the non-controversial content of One Minute Economics:

- The fact that this type of content is less debated than the average One Minute Economics video, as shown in Subchapter 3.3
- The fact that this type of content is less propagated than the average One Minute Economics video, as shown in Subchapter 3.4

- The fact that this type of content leads to fewer emotional reactions (either positive or negative) than the average One Minute Economics content, as shown in subchapter 3.5

Final conclusions and research continuation perspectives

In order for the major debates on economic theory in the sphere of international economic relations to take place, the presence of an essential element was indisputably needed: tenacity. Smith's tenacity to articulate points of view in clear contrast to the mercantilist perspective, Ricardo's tenacity to offer an alternative to absolute advantage and generally, the willingness to articulate ideas or theories not categorizable as non-controversial.

In the spirit of this idea, the primary conclusion of this paper is clear:

A framework involving the online debate on economic theory in the sphere of international economic relations dominated by non-controversial content becomes a framework of sub-optimal performance.

An even more important conclusion as phenomena such as cancel culture risk leading to undesirable trends in self-censorship among thinkers (in this case thinkers of economics) concerned about the potentially devastating career-related consequences of articulating controversial ideas. Undesirable because as the case study of Chapter 3 revealed, non-controversial content leads to:

- Sub-optimal online debate (subchapter 3.3)
- A sub-optimal propagation of the message (subchapter 3.4)
- Sub-optimal readiness to react emotionally (subchapter 3.5)

Ignoring these conclusions leads to a sterile space for online debate on economic theory in the sphere of international economic relations, in a volatile international context (explained in Chapter 2) and one governed by non-linear threats such as the spread of false information that can hardly be combated in the absence of tenacity and creativity. Qualities inhibited by decisions such as remaining in the realm of non-controversy so as to avoid potential unwanted career-related consequences.

It is indisputably necessary to (increasingly) focus on the online debate dimension and its peculiarities, both in terms of economic theory related to international economic relations (the topic of this paper) and in other areas, not only strictly tangent to economics.

Ultimately, given that social media platforms such as YouTube represent an important (often primary) vehicle of information acquisition for billions of citizens, the economic science in this case but also other fields inevitably end up in a situation where adaptation to new realities becomes a necessity, regardless of the pros or cons. Otherwise, the unwillingness to accept and pursue the adaptation to the reality that online debate is not just a temporary trend but a structural change can only give rise to an information vacuum from which bad faith actors can benefit, all the more so in the context of information warfare.

This topic in itself is not without controversy, especially controversies fueled by social media criticism, a phenomenon that has brought with it the most devastating of consequences. But regardless of the potential conclusions pertaining to dilemmas such as whether or not social media can be seen as a net beneficial phenomenon to society at the moment (conclusions beyond the scope of this paper), realities such as the one mentioned above (the fact that the number of social media platform users is in the order of billions) approaches such as this one necessary.

Also, the institutional role of international bodies can be rethought in order to establish and optimize responsibilities aimed at the better management of asymmetric risks such as those addressed in this paper. Fortunately, even if phenomena such as misinformation campaigns can lead to negative consequences that are difficult to manage in the current regulatory framework, the gap is not insurmountable, provided that the phenomena of integration and collaboration are extended.

Further research is essential to:

- Better understanding of online debate on economic theory in the field of international economic relations on social media platforms other than YouTube
- Determining the extent to which it is possible to create an effective institutional framework for managing the flow of social media information, either in general or through policies calibrated for each major platform

- Encouraging social media content creators to capitalize on analytics data (be it Google Analytics or analytics data of any other nature) and disseminate relevant findings to expand the scope of research
- Drawing attention, through an increased volume of research, on the importance of adequate allocation of resources in the direction of understanding and managing the online dissemination of content on economic theory related to international economic relations and beyond

In conclusion, it should be emphasized that measures that lead to the better management of the flow of information are neither difficult nor financially prohibitive to implement. Just as bad faith actors have chosen the information field as a target because it has particularly disruptive potential relative to the monetary unit invested in this regard, a series of simple and easily implementable measures such as those addressed in this paper and those that could be discovered through future research efforts may be sufficient to restore balance.

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