Revista ARACÊ
ISSN: 2358-2472

TECHNOLOGICAL PRACTICE MEDIATED BY REFERENCE GROUPS: A THREE-DIMENSIONAL PERSPECTIVE

https://doi.org/10.56238/arev6n1-027

Data de Submissão: 30/08/2024 **Data de Publicação:** 30/09/2024

Alan Araújo Freitas[1]

ABSTRACT

The article aims to understand how the organizational logic of a family budget unit facilitates dialogue between the members of that unit and establishes the intermediation of information and communication between these individuals. In other words, does the family context influence technological practice and learning? Technological praxis also depends on the ability to use technology, mainly developed during schooling. Is the correlation between formal education and technological learning significant? A three-dimensional analytical model is proposed that simultaneously evaluates three independent variable factors that can directly and indirectly interfere with an individual's technological practice (dependent variable). First is the individual's access to communication technologies in their family. Secondly, the level of education achieved by the individual. Thirdly, access to communication and information technologies (ICTs) in the family of destination. Quantitative methodologies (path analysis) are used to analyze data and information on Brazil based on data from the National Household Sampling Survey (PNAD/2014).

Keywords: Technological Learning. Technological Practice. Reference Group. Budget Unit. Technoculture.

[1] PhD in the Department of Sociology at the Federal University of Rio de Janeiro
Assistant Professor (Full-time teacher)
Institute of Pure and Applied Sciences (ICPA), Federal University of Itajubá (UNIFEI), Itabira- Minas Gerais, Brazil
Member of the International Sociological Association (ISA-Sociology)
Is corresponding author
E-mail: alan.freitas@unifei.edu.br
ORCID: 0000-0001-7489-2126

Revista ARACÊ
ISSN: 2358-2472

INTRODUCTION

Technology, capable of subverting productive forces, modifies subjectivities (De Almeida, 2014), collectivities (Graf-Vlachy et al., 2018), and societies1 (Burrell & Fourcade, 2021), just as technological disruption historically presents new opportunities and challenges (Teixeira & Cecchini, 2020). Regarding technology, research aimed at understanding the importance of reference groups for technological practice (Kim et al., 2007) and learning is uncommon (cf. Graf-Vlachy et al., 2018). The relationships between technology, culture, and society have been understood and explained from the perspective of methodological individualism (Sarker & Valacich, 2010; Graf-Vlachy et al., 2018). Ninety-nine of the one hundred and thirteen studies analyzed in a recent article by Graf-Vlachy et al. (2018) use the individual as the central unit of empirical analysis (cf. Graf-Vlachy et al., 2018). The unequivocal success of the individualist paradigm and theoretical-methodological syntheses on technoculture contributes to the current vacuum on the subject. Among the fourteen articles evaluated by Graf-Vlachy et al. (2018), which explore the influence of social groups on the adoption of technologies, we highlight the work of Duncan et al. (2000), Sacerdote (2001), Glaeser et al. (2002), Duflo et al. (2002), Brock and Durlauf (2002), Powell et al. (2005), Chiu et al. (2006), Mason et al. (2007), Krauth (2008) and Bruque et al. (2009), Magni et al. (2013).

Although the works cited consider the influence of reference groups on individuals' technological praxis, these studies do not assess the influence throughout people's life cycles nor the long-term impact that the nuclear family has on the individual's technological learning process, which includes technological practice. A three-dimensional analytical model is proposed that simultaneously evaluates three independent variable factors that can, directly and indirectly, interfere with technological practice (dependent variable):

1. The individual's access to communication technologies in their family.
2. The level of education achieved by the individual.
3. Access to communication and information technologies (ICTs) in the family of destination is understood as the family built by the individuals themselves.

The article is organized as follows: First, studies and theories on technoculture are presented. A look at the influence of social groups on the technological development of individuals follows this. Next, the methodology section is organized into two topics: a) methodology and b) methods and techniques. Finally, questions for future research are presented.

Revista ARACÊ
ISSN: 2358-2472

TECHNOCULTURAL MEDIATORS

There are at least two dissenting views on the subject of 'technoculture,' the critical position of Wolton (2003), who argues that simple access to communication and information technologies does not necessarily increase the capacity to construct knowledge (De Almeida, 2014). In this theoretical-methodological view, intermediation remains necessary in the network society. Synthetic theories in the area reflect on the issue of mediation and mediators in contemporary technocultural flows, as Latour (2008), Callon (2004), and Miège (2009) do. For Miège (2009), the sociocultural appropriation of technology involves the social logic of information and communication (De Almeida, 2014), which, despite having their dynamic, independent of ICTs, obtain dynamic impulses from them that change according to their evolution over time (De Almeida, 2014). Miège (2009) discusses the factors contributing to individuals appropriating technologies (De Almeida, 2014). Individuals thus incorporate technologies through a process that often involves reconfiguring the uses of these technologies and developing new habits and social attitudes (Miège, 2009 apud De Almeida, 2014). For Wolton (2003), another theorist of intermediation between technology and culture, the mediators are teachers and documentalists, who maintain a central role as knowledge intermediaries in contemporary times (De Almeida, 2014).

Although technology is available in our culture, how individuals incorporate it depends to some extent on their education level or skills in using technological resources (Wolton, 2003). Lahire (1997) offers a similar interpretation and believes that learning and the inequalities inherent in the learning process stem from the social interactions prevalent in the phase known as 'secondary socialization.' On the other hand, Pierre Bourdieu understood that an individual's educational path is determined before school (secondary) socialization in primary (family) socialization. The concept of cultural capital expresses the importance of family social origin, understood as central to social reproduction. Therefore, developing intellectual competencies based on understanding and incorporating information is still the primary means of learning under the guidance of mediators, in this case, teachers and other professionals, who facilitate understanding information (De Almeida, 2014).

A different assessment was made by Gallivan et al. (2005), who question training in the area of technology and information and propose that learning takes place through peers (work colleagues). Authors such as Pierre Lévy (2000) and Ina Fourie (2001), on the other

Revista ARACÊ
ISSN: 2358-2472

hand, defend the concept of 'disintermediation' and argue that the Internet has led to the decentralization of information and communication production, which has extinguished the role of technocultural mediators (Lévy, 2000 apud De Almeida, 2014). In this view, the Internet has led to a process of disintermediation, in the sense that individuals learn quickly from the interfaces that have been developed with human intuitive adaptation in mind. For disintermediation theorists, what allows the concept of disintermediation to be constructed is the context of developing more sophisticated products and services that facilitate human-machine interaction; in short, the interfaces bring individuals closer to the technological reality.

GROUPS AS TECHNOCULTURAL MEDIATORS

The question of mediation between society and the individual or between the individual and society is old in the human and social sciences. Therefore, class is also a way of establishing this mediation between society and the individual (Marxian model) and between the individual and society (Weberian model). *Class* is the economic division that exists between groups of individuals (Freitas, 2018; 2021). The concept of estates or status fulfills the function of mediating the social difference at a symbolic and normative level (Araújo-Freitas, 2023a; 2023b). In a parallel sense, the idea of habitus developed by Pierre Bourdieu is intended, among other things, to mediate this dialectical relationship between society and the individual (Freitas, 2013; Araújo-Freitas, 2015). With this concept, Bourdieu claimed to have resolved the issue by demonstrating that society reaches the individual through this habitus, capable of generating in ways typical of their place in society (Freitas, 2018; 2021a; 2021b). Culture is understood in the group analysis proposed here similarly to Claude Lévi-Strauss' structuralist explanation, representing form (morphology) and meaning (syntax) - (Araújo-Freitas, 2023b). In other words, culture offers individuals shared forms of social action, representing practical ways of acting and multiple meanings for social action. However, the forms and meanings are distinct in social terms since they are constituted based on class divisions and strata (Freitas, 2023c; 2023d; 2023f).

With these concepts, it is possible to analyze whether technological practice differs by social class, for example (Freitas, 2023e). At more superficial levels of social aggregation, there are fewer generalizing concepts. The concepts of reference groups, other generalized groups, and budget units establish the intermediary between the individual and society and help explain the social causes of technological praxis. Behavioral

Revista ARACÊ
ISSN: 2358-2472

and sociological research commonly differentiates its assessments into analytical levels or units of analysis (Klein et al., 1994). The most frequently used levels are individual, group, organizational, and societal (Graf-Vlachy et al., 2018). In addition, in some cases, multiple levels of analysis can be observed, specifically from combinations of the individual and group levels (Graf-Vlachy et al., 2018), individual and societal, and individual and organizational, among others. The direction is also variable, meaning analyses based on the individual (methodological individualism) start from the individual to larger aggregates (Freitas, 2022a; 2022b; 2022c).

On the other hand, methodological collectivism proposes analyses at the level of groups, organizations, and societies, concerned with showing how the social organization influences individual behavior (cf. Burton-Jones and Gallivan, 2007). The 'budget unit' concept contributes to understanding the logic of research centered on the reference group (Freitas, 2022c). This concept allows us to resolve the mediation dilemma between the individual and society and society and the individual. In the group paradigm, society reaches the individual through reference groups, as well as through the incorporation of social rules from these groups. The individual reaches society when they passively or actively participate in groupings of individuals and form groups, organizations, councils, unions, social classes, institutions, and societies.

Intuitively, families are believed to contribute to their members' technological practice and learning in two ways. They directly provide their members with access to technology in the family home, and they finance their children's school education. Direct access to technology and family investment in human capital foster technological practice but not technological learning, which depends on the individual. The family group is an example of a budget unit in which individuals contribute to the household with various social roles, such as provision, care, and protection. In Western-influenced cultures, people from the same nuclear family often share the same geographical space, the home they share, and the things in that home. For example, they share televisions, radios, landlines, computers, and internet networks (cf. Agarwal, 2009). In this sense, people from the same family are very close from a social and economic point of view, and because they are near, they influence each other's behavior. The focus on the social group is essential among symbolic interactionists, most notably George Herbert Mead and his concept of the 'generalized other,' which refers to the ability developed by the individual to assume the point of view of other people and internalize social norms and rules based on the group's point of view. By

Revista ARACÊ
ISSN: 2358-2472

internalizing someone else's view, the individual seeks to regulate behavior following social expectations.

> *'The generalized other is an abstraction of the common elements of the attitudes of those with whom the individual interacts, which, once incorporated by the individual, come to exercise self-control within the structure of the normative order with which they identify' (Sant'Ana, 2007, p. 127).*

The concept of the generalized other makes it possible to understand how the individual's decision, although not determined, is mediated by reference groups. Based on the idea of the 'generalized other,' the self results from the individual's internalization of the behaviors and attitudes of the people with whom they interact. The individual incorporates social norms from these people, just as identity is formed from the influence of these social groups. Reference groups mediate between the social structure and the individual. In this respect, the social position of the family of origin is significant for forming identity, which considers elements of class and status. The family as a budgetary unit establishes the double mediation of individuals' actions, providing a material base of habits, knowledge, and worldviews.

Technological practice, or the habitual use of different technologies, is significantly influenced by reference groups. It begins when children are introduced to personalized computer technologies through the devices in their homes and the homes of relatives and other close people. The influence of parents and others, who are part of the children's reference groups, is crucial in this process. A family with a personal computer in all its different formats- microcomputer, notebook, tablet, mobile phone, and a private internet network- not only facilitates the technological practice of its members but also underscores the role of reference groups in shaping technological habits.

The concept of 'technological learning' is associated with technological practice but involves the formal or informal education of computer codes and behaviors that facilitate the execution of some task. Technological practice is the experience mediated by the individual's reference groups; it is their routine with technological artifacts. Technological learning represents the ability to act with knowledge and relative expertise in technological areas. *Technological learning* is a skill or ability developed throughout life to deal with technology. School education does not determine technological learning but is associated with it.

Revista ARACÊ
ISSN: 2358-2472

The difference between technological practice and technological learning is that practice is mediated by habit and custom (unconscious), while technological learning is mediated by reason and knowledge. It is the conscious dimension of expertise. Technological learning involves the application of knowledge in different contexts because it is not the simple imitation of practice; it is a practice carried out flexibly. Individuals gain some autonomy as they go through multiple experiences and acquire certain habits and knowledge from their reference groups. However, they are still dependent on other people's materials to learn. Throughout the individual's life cycle, learning takes on a different shape to that of youth, ceasing to be practical and selfish and becoming reflective and collaborative.

METHODOLOGY

This article is a significant contribution to understanding how the organizational logic of a family budget unit facilitates dialogue between members of the unit and establishes the intermediation of information and communication between these individuals. It delves into the crucial question: Does the family context influence technological practice and learning? Technological praxis, a skill developed during schooling, is also a key factor. The correlation between formal education and technological learning is a significant aspect of this research. The division of variables and their respective units of analysis will be between the household (budget unit) and the individual (head of household). In the unit of study at the household level, in the budget unit, the independent variable: 'index of access to technology (IAT),' was constructed based on socioeconomic information from the parents of the spouses living in the household interviewed.

At the same level of analysis, the dependent variable: 'the index of access to technology (IAT),' was meticulously constructed based on socioeconomic information about the household residents. At the individual level, the following variables will be used: years of schooling (Wolton, 2003), age (Morris and Venkatesh, 2000; White et al., 2007), and gender (Venkatesh et al., 2000; Hnysveen et al., 2005; White et al. 2007). The 2014 National Household Sample Survey (PNAD) will be used, as it contains comprehensive information on access to technologies such as computers, personal computers, internet access, and place of access. As well as socio-economic information, the database has other information on the access of individuals and their families to essential technologies such as television, fridges, radios, own vehicles, and others.

Revista ARACÊ
ISSN: 2358-2472

At school, individuals interact with other people, form groups, and incorporate new learning based on collaboration between peers and between peers and educators (cf. Brown et al., 2010). In modern societies, professional occupations are directly related to school education, and skilled occupations require different levels of education. Family investments in human capital, combined with the efforts of individuals and their relationships with educators, contribute to the results obtained by these individuals. Results are also influenced by the individual's class position (Erikson et al., 1979). The economic, cultural, and social capital of families influences their investment in the human capital of their heirs. It contributes to technological learning and knowledge (Inkpen and Tsang, 2005).

These skills influence the ability to generate income and social groups' and individuals' standard of living. Individuals share efforts, resources, and problems with their reference groups, especially their families, so a model centered on family budget units will be explained. Different from the theoretical models of intermediation and disintermediation is the proposition of a process-based model, described using path analysis. Path analysis allows the influence of classic intervening variable factors, such as access to school education (Wolton, 2003) and technology (Lévy, 2000), to be assessed in the same statistical model. However, the focus on the influence exerted by the social context of origin is the main novelty of the article. The difference in the proposal here is that instead of a dual model, as presented by the theories of intermediation and disintermediation, it presents a three-dimensional model that evaluates three relationships.

ANALYTICAL MODEL

The family, as the most significant reference group, as understood by Duncan et al. (2000), can transfer to its nuclear member's different capitals, economic, cultural, and social, depending on their social, financial, and cultural characteristics (Bourdieu and Passeron, 1982). Although the influence of other reference groups, non-nuclear relatives, friends, and colleagues, is probably not as significant as that of the family, these groups probably act as significant generalized others for individuals. By interacting with their reference groups, individuals incorporate the dispositions, beliefs, and values of these groups (cf. Cho, 2011). The division between primary and secondary socialization is not considered in the proposed model due to the increasingly early entry into school. At school, the individual interacts with other people, forms groups, and incorporates new learning

Revista ARACÊ
ISSN: 2358-2472

based on collaboration between peers and between peers and educators (cf. Brown et al., 2010).

In modern societies, professional occupations are directly related to school education, and skilled occupations require different levels of education for their fulfillment. Family investments in human capital, combined with individual efforts and their relationships with educators, contribute to the outcomes achieved by these individuals. The outcomes are also influenced by the individual's class position (Erikson et al., 1979). The economic, cultural, and social capital of families influences their investment in the human capital of their heirs. It contributes to the outcomes observed regarding learning and technological knowledge (Inkpen and Tsang, 2005).

These skills influence the ability to generate income and social groups' and individuals' standard of living. Individuals share efforts, resources, and problems with their reference groups, especially their families; thus, a model centered on family budget units will be explained. Unlike the theoretical models of intermediation and disintermediation, it is the proposition of a process-based model described through path analysis. Path analysis allows for the evaluation, in the same statistical model, of the influence of classic intervening variable factors, such as access to schooling (Wolton, 2003) and access to technology (Lévy, 2000). However, the focus on the influence exerted by the social context of origin is the main novelty of the article. The difference in the proposal discussed here is to present, instead of a dual model, as the theories of intermediation and disintermediation present. This three-dimensional model evaluates three relationships.

Model 1 below methodologically describes the paths of practice and technological learning, which involve three correlations: a) access to technology in youth, b) schooling, and c) technological practice in adulthood. The numbers one, two, and three in Model 1 represent the research hypotheses. 1) The direct path is understood through the interaction between the family's access to technologies and the technological practice of their children as adults (Freitas, 2023d). The direct effect means that social origin interferes with technological practice in adulthood, independently of schooling. The other paths are indirect and mediated by education. In these paths, technological praxis also depends on the ability to use technologies, mainly developed through schooling. 2) Interaction between socioeconomic origin and achieved schooling, and 3) correlation between achieved formal education and technological practice. Independent variables: index of access to technology (IAT), with information on the social origin of the individual.

Revista ARACÊ
ISSN: 2358-2472

RESULTS

Table 1 analyses the standardized betas of a model that studies the link between gender, cultural capital, and education in the use of technology. The standardized betas show the intensity and direction of the relationship between the variables. There is a significant but negative association between the use of technology in the case of males. Table 1 shows that men have less access to technology than women when other independent variables are not controlled for. However, when an interactive term is used with the variables 'Male gender' and 'Cultural capital,' a different pattern emerges. The relationship between the variables 'Male gender' and 'Cultural capital' is significant.

This indicates that for men with higher cultural capital, there is an increase of more than twenty-five percent in the chance of accessing technology in adulthood, offsetting the negative effect of identifying as male. When evaluating the independent term 'Education' in isolation, a negative and significant association is seen with access to technology, which may indicate that higher levels of education are not necessarily related to greater access to technology in adulthood. Men with higher levels of education also have greater access to technology.

The relationship between cultural capital and education is a complex and intriguing one. It suggests that individuals with more cultural capital and advanced education tend to have greater access to technology. However, the triple interaction presents a more nuanced picture. While it does show a negative relationship, it is not statistically significant. This could mean that the presence of the three factors mentioned-'Male gender, high cultural capital and education'-may lead to a reduction in access to technology. The complexity of these relationships challenges us to delve deeper into this issue.

Table 1. Access to technology (Standardised Betas) - Gender

Access to technology	Standardised Betas	P> | t |
Male	.-0,244	0.017
Cultural Capital	.-0,112	0.006
Male * Cultural Capital	0.257	0.037

Revista ARACÊ
ISSN: 2358-2472

Education	.-0.107	0.015
Male * Education	0.212	0.032
Cultural Capital * Education	0.298	0.000
Male * Cultural Capital * Education	.-0.218	0.071
Prob > F	0.0000	
R - Squared	0.018	
N	18.991	

Source: PNAD (2014)

CONCLUSION

It was seen that even though there are significant correlations between gender, cultural capital, education, and their interaction with access to technology, the overall effect of these variables in the model is relatively limited, as demonstrated by the low R^2. This means that there are several other elements involved in access to technology. The connection between cultural capital and education is fundamental, indicating that these elements make using technology easier. Interestingly, the connection between men and access to technology is negative, but this connection changes or is softened when combined with high cultural capital and education levels.

DISCUSSION

The article also envisions other questions for future research, such as: How does cultural capital influence technological practice and learning? What is the influence of social class on technological learning? Does the incorporation of AI by social groups take a stratified form in countries with advanced industrialization and high levels of technological development? Does the teaching of generative intelligence by social groups take a stratified form in countries with late industrialization and low levels of technological development? Is the technological practice of social groups stratified in countries with intermediate levels of industrialization and technology?

Revista ARACÊ
ISSN: 2358-2472

Do countries with the lowest levels of social inequality also have the weakest indicators of technological stratification? Do models of social stratification applied to the understanding of technocultural relations better adapt to societies with high levels of social inequality? Is the synthetic micro and macro approach, which is traditional in research that evaluates the relationships between technology, culture, politics, economy, individuals, and society, more suitable for societies with lower levels of social inequality? Should cultural and demographic factors be considered when choosing the approach used?

At a higher level of aggregation than reference groups, is there a distinction in technological practice mediated by socioeconomic factors, such as social classes? Will Brazilian families be impacted similarly to families from other countries and continents by the rise of intelligent machines? Which social groups are most vulnerable in this disruptive scenario? Is the opportunity for technological learning co-dependent on other generalized others (friends, colleagues, and relatives)? Does the region of residence influence the way social groups absorb technologies? How might AI impact collaborative work? What are the possible economic implications for social groups from adopting generative intelligence? In this scenario, which public policies can contribute to a humane transition considering family financial differences?

What opportunities do these artificial intelligences offer to business groups and societies? How have social groups and movements used AI? How will social groups formed by authors who claim to be “harmed” by AI organize around their rights? Could AI affect the way individuals meet their partners and form their families? How does AI influence the social networks we form? How do algorithms determine what different social groups see on the internet?

Is the information provided by algorithms different based on social factors? Which social groups are most penalized by the selectivity of algorithms? Do algorithms differentiate people based on their occupational groups? Are algorithms constantly classifying individuals? How does artificial intelligence define individuals in terms of social belonging and groups? Does this define the availability of information accessible to individuals? Do algorithms classify the information available to individuals based on ascriptive characteristics?

Revista ARACÊ
ISSN: 2358-2472

ADDITIONAL STATEMENTS

The author wrote, analyzed the data, and revised the work.

The work is self-financed.

The data is publicly available and released by the official geography and statistics agency.

There are no conflicts of interest involved.

Revista ARACÊ
ISSN: 2358-2472

REFERENCES

1. Adler, P., & Kwon, S. (2002). Prospects for a new concept. The Academy of Management Review, 27(1), 17-40.

2. Agarwal, R., Animesh, A., & Prasad, K. (2009). Social interactions and the 'digital divide': Explaining variations in internet use. Information Systems Research, 20(2), 277-294.

3. Almeida, M. E. (2003). Educação a distância na internet: Abordagens e contribuições dos ambientes digitais de aprendizagem. Educação e Pesquisa, 29(2), 327-340.

4. Araújo-Freitas, A. (2015). Gender wage inequality measured using quantile regression: The impact of human, cultural, and social capital. Revista Mexicana de Ciencias Políticas y Sociales, 60(223), 287-315.

5. Araújo-Freitas, A. (2023a). Herencia social, capital humano y familia en Brasil. Estudios Sociológicos, 41(123), 805-838.

6. Araújo-Freitas, A. (2023b). A hermenêutica matemática como perspectiva analítica sociológica: Esboços de uma teoria plausível da ação social. Espacio Abierto, 32(4), 161-182.

7. Asch, S. (1953). Effects of group pressure upon the modification and distortion of judgments. Group dynamics: Research and theory, 222-236.

8. Bourdieu, P., & Passeron, J. (1982). A reprodução: Elementos para uma teoria do sistema de ensino (2ª ed.). Rio de Janeiro: Francisco Alves.

9. Bourdieu, P. (1986). The forms of capital. In Handbook of Theory of Research for the Sociology of Education, 242-258.

10. Brock, W. A., & Durlauf, S. N. (2002). A multinomial choice model of neighborhood effects. American Economic Review, 92, 298-303.

11. Brown, S., Dennis, A., & Venkatesh, V. (2010). Predicting collaboration technology use: Integrating technology adoption and collaboration research. Journal of Management Information Systems, 27(2), 9-53.

12. Bruque, S., Moyano, J., & Eisenberg, J. (2008). Individual adaptation to IT-induced change: The role of social networks. Journal of Management Information Systems, 25(3), 177-206.

13. Burrell, J., & Fourcade, M. (2021). The society of algorithms. Annual Review of Sociology, 47(1), 213-237.

14. Burton-Jones, A., & Gallivan, M. (2007). Toward a deeper understanding of system usage in organizations: A multilevel perspective. MIS Quarterly, 31(4), 657-679.

Revista ARACÊ
ISSN: 2358-2472

15. Callon, M. (2004). Por uma nova abordagem da ciência, da inovação e do mercado: O papel das redes sociotécnicas. In A. Parente (Org.), Tramas da rede: Novas dimensões filosóficas, estéticas e políticas da comunicação (pp. 64-79). Porto Alegre: Sulina.

16. Castells, M. (2003). Internet e sociedade em rede. In D. Moraes (Org.), Por uma outra comunicação: Mídia, mundialização cultural e poder (pp. 255-287). Rio de Janeiro: Record.

17. Chiu, C.-M., Hsu, M., & Wang, E. (2006). Understanding knowledge sharing in virtual communities: An integration of social capital and social cognitive theories. Decision Support Systems, 42(3), 1872-1888.

18. Chow, L., & Chan, S. (2008). Social network, social trust and shared goals in organizational knowledge sharing. Information & Management, 45(7), 458-465.

19. Cho, H. (2011). Theoretical intersections among social influences, beliefs, and intentions in the context of 3G mobile services in Singapore: Decomposing perceived critical mass and subjective norms. Journal of Communication, 61(2), 283-306.

20. De Almeida, M. A. (2014). Mediação e mediadores nos fluxos tecnoculturais contemporâneos. Informação & Informação, 19(2), 191-214.

21. Duflo, E., & Saez, E. (2002). Participation and investment decisions in a retirement plan: The influence of colleagues' choices. Journal of Public Economics, 85, 121-148.

22. Duncan, G. J., Boisjoly, J., & Harris, K. (2000). Sibling, peer, neighbor, and schoolmate correlations as indicators of the importance of context for adolescent development. Demography, 38, 437–474.

23. Erikson, R., Goldthorpe, J., & Portocarero, L. (1979). Intergenerational class mobility in three Western European societies: England, France and Sweden. British Journal of Sociology, 30(4), 415-441.

24. Fourie, I. (2001). ¿Debemos tomarnos en serio la desintermediación? Anales de Documentación: Revista de Biblioteconomía y Documentación, 4, 267-282.

25. Freitas, A. A. (2013). Debates sobre o retorno financeiro ao capital humano: O aumento da escolaridade das mulheres foi capaz de reduzir o hiato salarial de gênero? (Tese de Mestrado). Universidade Federal de Minas Gerais, Belo Horizonte, Brasil.

26. Freitas, A. A. (2018). Desigualdades do mercado ou diferenças familiares: Da divisão social relativa ao patrimônio elementar (Tese de doutorado). Universidade Federal de Rio de Janeiro, Rio de Janeiro, Brasil.

27. Freitas, A. A. (2021). Bem-estar e estratificação social no Brasil contemporâneo. Revista Brasileira de Sociologia, 9(22), 196-221. https://doi.org/10.20336/rbs.634

Revista ARACÊ
ISSN: 2358-2472

28. Freitas, A. A. (2022a). A importância dos investimentos públicos e privados no bem-estar das novas gerações brasileiras. Caderno Eletrônico de Ciências Sociais, 9(2), 47-63. https://doi.org/10.47456/cadecs.v9i2.38401

29. Freitas, A. A. (2022b). Two indicators for the social sciences. In C. Skiadas & C. Skiadas (Eds.), Quantitative Methods in Demography: Methods and Related Applications in the Covid-19 Era (pp. 461-472). The Springer Series on Demographic Methods and Population Analysis (52). Springer Cham. https://doi.org/10.1007/978-3-030-93005-9_31

30. Freitas, A. A. (2022c). Desenvolvimento do consumo de bens e grau de fechamento social no Brasil. Revista Cadernos de Ciências Sociais da UFRPE, 1(19), 46-66. https://www.journals.ufrpe.br/index.php/cadernosdecienciassociais/article/view/5189

31. Freitas, A. A. (2023c). The influence of family capital and residential area on the chances of accessing tertiary education. In The Palgrave Handbook of Global Social Problems. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-68127-2_396-1

32. Freitas, A. A. (2023d). Infraestrutura urbana e consumo privado no Brasil: Uma análise por regressão quantílica das regiões e estratos sociais. Revista Contemporânea, 3(6), 6278-6300. https://doi.org/10.56083/RCV3N6-083

33. Freitas, A. A. (2023e). The impact of technological innovation on occupational insertion: A case study in Brazil. Discovery Global Society, 1(2). https://doi.org/10.1007/s44282-023-00002-y

34. Freitas, A. A. (2023f). Welfare process and social stratification in Brazil. In The Palgrave Handbook of Global Social Problems. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-68127-2_373-1

35. Friedkin, N., & Johnsen, E. (1999). Social influence networks and opinion change. Advances in Group Processes, 16, 1-29.

36. Gallivan, M., Spitler, V., & Koufaris, M. (2005). Does information technology training matter? A social information processing analysis of coworkers' influence on IT usage in the workplace. Journal of Management Information Systems, 22(1), 152-192.

37. Glaeser, E. L., Sacerdote, B., & Scheinkman, J. (1996). Crime and social interactions. Quarterly Journal of Economics, 111, 507-548.

38. Glaeser, E. L., & Scheinkman, J. (2002). Non-market interactions. In L. P. Hansen, M. Dewatripont, & S. Turnovsky (Eds.), Advances in Economics and Econometrics: Theory and Applications, Eighth World Congress (pp. 1-33). Cambridge University Press.

39. Inkpen, A., & Tsang, E. (2005). Social capital, networks, and knowledge transfer. Academy of Management Review, 30(1), 146-165.

Revista ARACÊ
ISSN: 2358-2472

40. Kim, C., Jahng, J., & Lee, J. (2007). An empirical investigation into the utilization-based information technology success model: Integrating task-performance and social influence perspective. Journal of Information Technology, 22(2), 152-160.

41. Klein, K., Dansereau, F., & Hall, R. (1994). Levels issues in theory development, data collection, and analysis. Academy of Management Review, 19(2), 195-229.

42. Krauth, B. (2006). Social interactions in small groups. The Canadian Journal of Economics / Revue Canadienne d'Économique, 39(2), 414-433.

43. Lahire, B. (1997). Sucesso escolar nos meios populares: As razões do improvável. São Paulo: Ática.

44. Graf-Vlachy, L., Buhtz, K., & König, A. (2018). Social influence in technology adoption: Taking stock and moving forward. Management Review Quarterly, 68, 37-76.

45. Hnysveen, H., Pedersen, P., & Thorbjørnsen, H. (2005). Explaining intention to use mobile chat services: Moderating effects of gender. Journal of Consumer Marketing, 22(5), 247-256.

46. Latour, B. (2008). Reensamblar lo social: Una introducción a la teoría del actor-red. Buenos Aires: Manantial.

47. Lévi-Strauss, C. (1958). Anthropologie structural. Paris: Plon. F. M., & Silva, J. M. (Eds.). Para navegar no século XXI: Tecnologias do imaginário e cibercultura. Porto Alegre: Sulina, pp. 195-216.

48. Magni, M., Angst, C., & Agarwal, R. (2013). Everybody needs somebody: The influence of team network structure on information technology use. Journal of Management Information Systems, 29(3), 9-42.

49. Marx, K. (2013). O Capital - Livro I – Crítica da economia política: O processo de produção do capital (R. Enderle, Trad.). São Paulo: Boitempo.

50. Mason, W., Conrey, F., & Smith, E. (2007). Situating social influence processes: Dynamic, multidirectional flows of influence within social networks. Personality and Social Psychology Review, 11(3), 279-300.

51. Mead, G. H. (1967). Parte III. The Self. A Brincadeira, o Jogo e o Outro Generalizado. In G. H. Mead, Mind, self, and society (pp. 152-164). Chicago: The Chicago University Press.

52. Miège, B. (2009). A sociedade tecida pela comunicação: Técnicas da informação e da comunicação entre inovação e enraizamento social. São Paulo: Paulus.

53. Morris, M., & Venkatesh, V. (2000). Age differences in technology adoption decisions: Implications for a changing workforce. Personnel Psychology, 53(2), 375-403.

Revista ARACÊ
ISSN: 2358-2472

54. Peng, G., Dey, D., & Lahiri, A. (2014). Healthcare IT adoption: An analysis of knowledge transfer in socioeconomic networks. Journal of Management Information Systems, 31(3), 7-34.

55. Powell, L., Tauras, J., & Ross, H. (2005). Peer effects, tobacco control policies, and youth smoking behavior. Journal of Health Economics, 24, 950–968.

56. Sacerdote, B. (2001). Peer effects with random assignment: Results for Dartmouth roommates. Quarterly Journal of Economics, 116, 655–680.

57. Sant'Ana, R. (2007). A dimensão social na formação do sujeito na psicologia. Memorandum, 12, 125-142.

58. Sarker, S., & Valacich, J. (2010). Uma alternativa ao individualismo metodológico: Uma abordagem não reducionista para estudar a adoção de tecnologia por grupos. MIS Quarterly, 34(4), 779-808.

59. Sarker, S., Valacich, J., & Sarker, S. (2005). Technology adoption by groups: A valence perspective. Journal of the Association for Information Systems, 6(2), 37-71.

60. Sykes, T., Venkatesh, V., & Gosain, S. (2009). Model of acceptance with peer support: A social network perspective to understand employees' system use. MIS Quarterly, 33(2), 371-393.

61. Valle-Silva, N. (2008). A dimensão social das desigualdades: Sistemas de indicadores de estratificação e mobilidade social. Ceres, Iuperj.

62. Teixeira, A., & Cecchini, C. (2020). Aprendiz ágil: Lifelong learning, subversão criativa e outros segmentos para se manter relevante na era das máquinas inteligentes. Porto Alegre: Arquipélago.

63. Venkatesh, V., Morris, M., & Ackerman, P. (2000). A longitudinal field investigation of gender differences in individual technology adoption decision-making process. Organizational Behavior and Human Decision Processes, 83(1), 33-60.

64. Weber, M. (1977). Classe, status, partido. In G. Velho, M. Palmeira, & A. Bertelli (Eds.), Estrutura de classes e estratificação social (7ª ed.). Rio de Janeiro: Zahar.

65. Weber, M. (2015). Economia e sociedade (Vol. 1, 4ª ed.). Brasília: UNB.

66. Weber, M. (2003). Family communities and communities of labor. In M. Weber, The history of commercial partnerships in the Middle Ages. New York: Rowman & Littlefield.

67. Wolton, D. (2003). Internet, e depois? Uma teoria crítica das novas mídias.