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Crossing Disciplinary Borders: How Italian SSH Journal Rankings Address Multidisciplinarity

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Abstract

The classification of Italian academic journals in the Social Sciences and Humanities (SSH), carried out by ANVUR (the National Agency for the Evaluation of Universities and Research Institutes), plays a critical role in evaluating research output and shaping academic careers. However, the extent to which this classification adequately accounts for multidisciplinarity—a fundamental aspect of addressing complex societal challenges—remains underexplored. By analyzing the Italian classification framework and reviewing journal profiles, we identify systemic biases, disciplinary boundaries, and structural constraints that may hinder the integration of cross-disciplinary scholarship in the Italian academic landscape. Our findings reveal a partial and inconsistent consideration of this dimension, highlighting both recent advancements and persistent limitations in fostering cross-disciplinary collaboration among researchers. This study contributes to the ongoing debate on research evaluation in SSH, offering recommendations to improve classification systems so they better align with the evolving nature of scholarly inquiry, societal needs, and global research trends.

Introduction

Journal classification plays a crucial role in the evaluation of academic research, particularly in the social sciences and humanities (SSH) (Pontille & Torny, 2010; De Filippo et al., 2020; Cicero & Malgarini, 2020; Bonaccorsi et al, 2016; Ferrara and Bonaccorsi, 2016, Sivertsen, 2016). Nevertheless, traditional classification systems tend to prioritize monodisciplinary approaches, which can hinder the recognition of innovative research that spans multiple fields (Frodeman et al., 2017; Rafols et al., 2012). In Italy, the National Agency for the Evaluation of Universities and Research Institutes (ANVUR) is responsible for overseeing the classification of SSH journals. ANVUR's classification system is pivotal for assessing the quality of research outputs in the SSH sectors, serving as a benchmark for evaluating the quality of publications submitted by researchers for habilitation and as a key determinant in academic promotions. Indeed, to obtain the Italian National Scientific Qualification (Abilitazione Scientifica Nazionale, ASN), researchers must meet predefined thresholds based on the number of articles published in ANVUR-classified journals. ASN is structured around highly sectoralized disciplinary fields (Gruppi Scientifico-

Disciplinari, formerly Settori Concorsuali), making it challenging for scholars engaged in interdisciplinary research to gain appropriate recognition. In fact, academic career progression is strongly tied to fulfilling specific disciplinary requirements, which may disadvantage those whose work spans multiple fields. The Italian journal classification system provides a structured framework for researchers to identify reputable publishing venues and ensure transparency in research evaluation, but it has also been criticized for its rigidity, particularly regarding research that transcends traditional disciplinary boundaries.

First of all, it is essential to draw a clear distinction between multidisciplinarity and interdisciplinarity. Multidisciplinary refers to the concomitant use of multiple disciplines to address a scientific problem or to their coexistence within a single context, such as a journal, where each discipline maintains its distinct methodologies and perspectives. In this sense, a multidisciplinary journal can be identified by analyzing the range of disciplinary fields associated with it in the ANVUR classification system. For journals indexed in Scopus, this can be assessed through the subject categories assigned to each journal. In contrast, interdisciplinarity involves the integration of methods, theories, and frameworks from different disciplines to address complex problems (Klein, 1990). It transcends mere juxtaposition, fostering a synthesis that creates new knowledge or solutions However, assessing the degree of interdisciplinarity remains challenging—not only due to data limitations but also because it requires a deeper analysis beyond surface-level classifications, often involving complex peer review processes, the absence of established metrics, and the constraints of rigid disciplinary boundaries While multidisciplinarity and interdisciplinarity are distinct concepts, they are nonetheless interrelated, as the integration of multiple disciplines often serves as a foundation for deeper interactions and synthesis across fields.

While relevant distinctions have been made in the literature, a systematic investigation of multidisciplinarity within the Social Sciences and Humanities (SSH), particularly in the Italian context, remains largely unexplored. Several studies have examined the extent and modalities through which fields in both SSH and the Science, Technology, and Medical (STM) domains engage in multidisciplinary practices. Notably, Soós et al. (2018) contest the conventional dichotomy between SSH and STM, showing that certain fields across these domains exhibit significant overlaps in their multidisciplinary profiles, thereby challenging the "two cultures" thesis. Their findings suggest that multidisciplinarity varies not only across disciplines but also along different analytical dimensions, pointing to the need for a more nuanced conceptualization. Moreover, the study argues that SSH and STM should be understood as umbrella categories—useful for administrative and communicative purposes, yet misaligned with the actual cognitive and structural organization of science. In parallel, other contributions have explored the institutional and epistemic challenges in integrating SSH into interdisciplinary research funding frameworks (Pedersen, 2016; Välikangas, 2024; Gerli, 2020). Additionally, some studies have assessed the degree of multidisciplinarity at the journal level across broad comparative datasets (Redondo-Gómez et al., 2024), though often without a dedicated focus on SSH, or concentrating on highly

multidisciplinary journals such as Nature or Science (Ackerson & Chapman, 2023; Solomon et al., 2016; Ding et al., 2018).

This paper presents a preliminary analysis aimed at uncovering structural limitations in the way multidisciplinarity is recognized—or neglected—within existing journal classification systems. Specifically, it seeks to investigate whether, and in what ways, multidisciplinary research is adequately acknowledged and represented in such frameworks.

It seeks to explore whether and how multidisciplinary research is acknowledged within ANVUR's journal classification system. Specifically, it investigates the extent to which journals that engage with multiple disciplines in the SSH are classified and valued, and how this impacts the visibility and evaluation of multidisciplinary scholarship. Addressing this gap, the paper contributes to the broader debate on research evaluation in SSH, providing empirical insights into whether current classification practices facilitate or constrain interdisciplinary scholarship in Italy. Although this study focuses on journal-level classifications, future research could extend the analysis of interdisciplinarity to the article level. One promising approach is to examine co-authorship networks, identifying collaborations between researchers from different disciplines as a proxy for interdisciplinary engagement. By mapping these networks, it may be possible to identify patterns of knowledge exchange, disciplinary integration, and the emergence of cross-field collaborations, especially considering how the structure and dynamics of research collaborations have evolved in recent years. Nevertheless, this approach should be used with caution, as it may have limitations: citation-based tools are often inadequate in the SSH due to lower citation rates and the prevalence of monographs or publications in national languages. This shift has been driven by the increasing recognition that complex global challenges – such as climate change, health crises, artificial intelligence, and social inequalities – require cross-disciplinary solutions. This evolution is particularly evident in competitive funding programs at both national and international levels. Additionally, analyzing citation networks could provide insights into how interdisciplinary work is received and integrated within academic discourse, shedding light on the real impact of cross-disciplinary research in SSH.

The structure of this paper is as follows: Section 2 provides an overview of ANVUR's journal classification system and its criteria. Section 3 examines the representation of multi- and interdisciplinary journals within the classification. Section 4 discusses the implications of these findings for the recognition of interdisciplinary research in SSH, offering a preliminary set of conclusions and recommendations for improving the evaluation of interdisciplinary scholarship.

The ANVUR classification system

Since 2012, the National Agency for the Evaluation of Universities and Research Institutes (ANVUR) has been tasked to maintain a list of scientific and top tier ('A-Class') journals, to be used by the Ministry of University in the context of the National Scientific Qualification procedures for social sciences and humanities. The classification is ruled by a specific regulation, delineating the criteria, parameters,

and procedures for classifying and updating the lists. Evaluation is performed by a specifically designated committees of professors, whose members are selected by drawing lots from a list defined based on a public call for expressions of interest. Experts included in the list should possess high scientific qualifications and adequate experience in evaluation. The classification of journals is used both as a tool to determine the qualification of prospective committee members and to define the eligibility thresholds for candidates. The regulation specifies detailed criteria for classifying journals, including considerations of scientific relevance, originality, peer-review processes, editorial quality, and adherence to ethical standards. The classification aims to ensure that journals meet rigorous academic standards and contribute meaningfully to their respective fields.

As per 2024, ANVUR has classified a total of over 23,000 journals. Table 1 shows their distribution across 6 different disciplinary areas (Architecture; Classical Studies, Philology and Literatures, History of Art; History, Philosophy and Education; Law; Economics and Statistics; Social and Political Sciences), also providing information about the share of journals classified by ANVUR which are also indexed in Scopus. Data shows that, overall, over 54% of journals included in the ANVUR lists of scientific journals is also indexed in Scopus, the share rising to 73% for top-tier (A-class) journals. Indexation is particularly common in Economics and Statistics, Social and Political Sciences and History, Philosophy and Education, being on the other hand less relevant in Law and in the diverse field of 'literary studies'.

Table 1. Classified journals by disciplinary field.

Area	N. of scientific journals	Of which: indexed in Scopus	N. of A-Class journals	Of which: indexed in Scopus
Architecture	2,547	1,186	451	336
Literary studies	7,803	3,379	2,758	1,718
History, Philosophy, Education	8,636	4,698	2,270	1,818
Law	2,851	931	734	309
Economics and statistics	8,265	5,883	1,460	1,415
Social and political sciences	5,414	3,222	1,755	1,491
Total	23,456	12,620	7,775	5,651

Multidisciplinarity of the ANVUR classification

Multidisciplinarity involves the collaboration of multiple disciplines to address a shared problem or topic, where each field retains its methods and perspectives without integrating them. Multidisciplinary approaches are often employed in addressing complex challenges like public health, urban planning, or climate change, benefiting from the diverse expertise of various fields (Max-Neef, 2005). While

multidisciplinarity fosters creativity and efficiency, it can result in fragmented insights and communication barriers (Tress et al., 2005). For example, multidisciplinary research on sustainable development might involve economists, ecologists, and sociologists working independently to contribute to holistic solutions. Though limited in integration, this approach may still be functional, and even crucial, in addressing broad, multifaceted global issues.

In the following analysis, we will examine multidisciplinarity through two complementary approaches. The first approach is based on the Scopus classification, thus considering only the share of journals indexed in this database, leveraging the ASJC (All Science Journal Classification) system.

The choice to focus on Scopus-indexed journals is driven by both methodological and regulatory considerations. First, inclusion in Scopus constitutes a sufficient condition for a journal to be recognized as scientific under current ANVUR regulations. Second, the ASJC (All Science Journal Classification) system provides a well-established and structured framework for identifying multidisciplinarity at the journal level, which aligns with the unit of analysis adopted by the ANVUR classification system. At this stage, alternative databases—such as the open-access platform OpenAlex—have not been considered, as they do not offer a classification of journals by disciplinary area but instead assign topics at the article level, making them less suitable for the purposes of this study.

The second approach relies on the ANVUR classification, examining the simultaneous presence of journals across multiple areas. This dual perspective will allow us to capture different dimensions of multidisciplinarity and assess its relevance in academic publishing.

Multidisciplinarity in indexed journals: an analysis based on the Scopus classification (ASJC)

In order to provide some first evidence about the degree of multidisciplinarity of the journals classified by ANVUR, for each scientific and A-Class journal included in our list that is also indexed in Scopus the number of ASJC in which it is included has been calculated. (Table 2): the higher the share of journals that are indexed in a high number of ASJC, the more the ANVUR classification in that particular field may be considered as multidisciplinary, in the sense defined above. The ANVUR database is updated as in the Spring of 2024, while the Scopus title list used in the analysis is that of December 2024.

Multidisciplinariy is particularly important in A-Class journals belonging to the broad field of ‘literary studies’: over 65% of the top-tier journals in this field are indeed indexed in at least two Scopus categories. Multidisciplinarity is also widespread among A-Class journals in Economics and Statistics and among both scientific and A-Class journals in Architecture. On the other hand, Law journals are mostly monodisciplinary, in the sense that 60% of those that are indexed in Scopus are classified only in one ASJC, and 93% of them are at most classified in two ASJC. Interestingly, in Architecture, History, Philosophy and Education and Social and Political Sciences the share of multidisciplinary journals is similar for scientific and A-Class journals. On the other hand, in Economics and Statistics and, to a minor

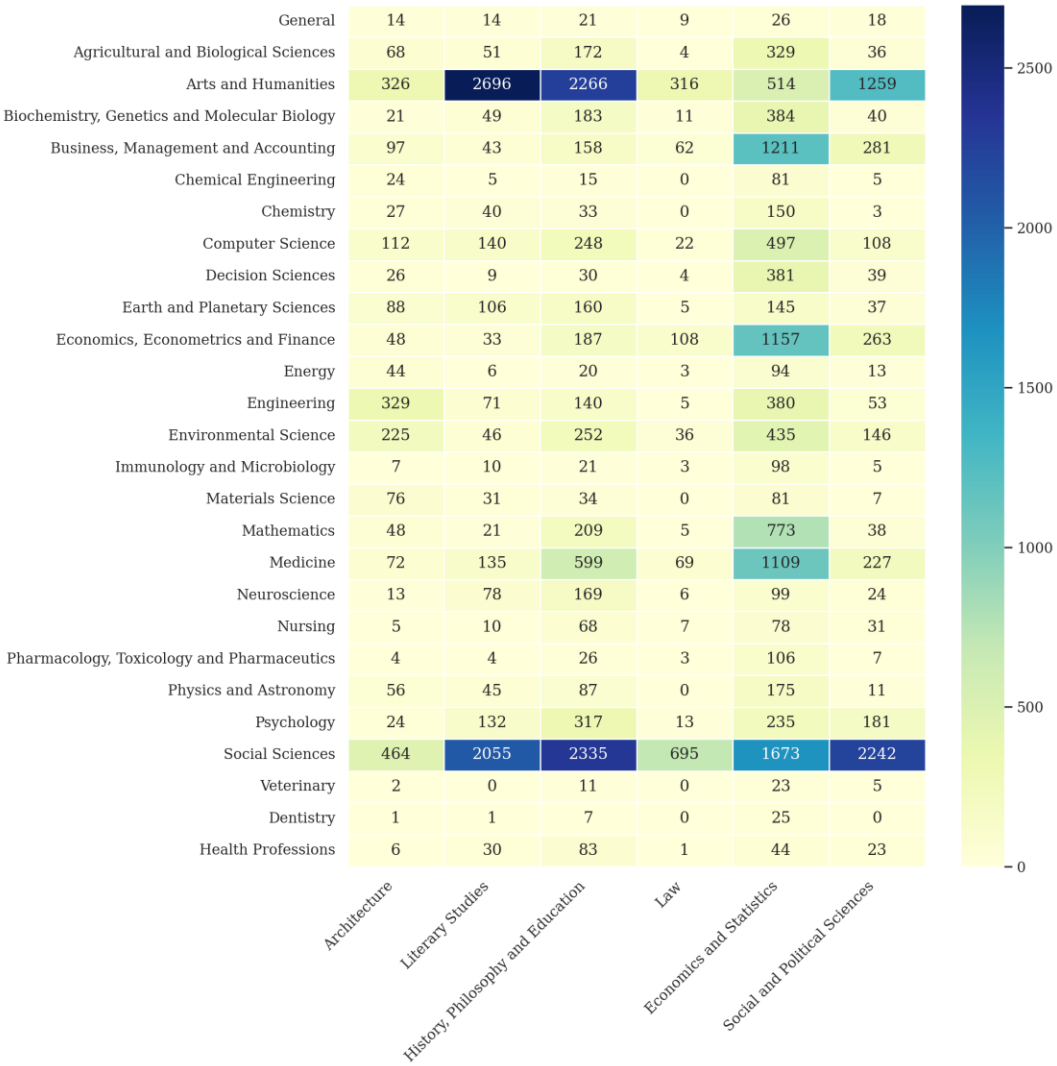
degree, in 'literary studies' multidisciplinarity is especially found in A-Class journals rather than in those recognised solely as scientific.

Table 2. Multidisciplinarity of ANVUR' journals with respect to the ASJC classification.

	Architecture		Literary studies		History, Philosophy and education		Law		Economics and statistics		Social and Political Sciences	
Number of AJC	Scientific	A Class	Scientific	A Class	Scientific	A Class	Scientific	A Class	Scientific	A Class	Scientific	A Class
1	38,4%	37,5 %	37,7%	33,3 %	46,5%	45,6%	59,8%	63,1%	45,5%	35,7%	52,8%	54,7%
2	40,6%	44,0 %	54,1%	59,9 %	42,9%	44,2%	33,1%	32,7%	38,7%	45,1%	38,7%	37,6%
3	16,5%	13,7 %	6,1%	5,5%	8,3%	7,7%	5,7%	3,6%	12,0%	13,6%	6,3%	5,9%
4	3,5%	4,2 %	1,4%	0,8%	1,8%	2,1%	1,1%	0,6%	2,8%	5,0%	1,8%	1,4%
5	0,8%	0,6 %	0,4%	0,3%	0,4%	0,4%	0,3%	0,0%	0,6%	0,6%	0,3%	0,5%
6	0,1%	0,0 %	0,2%	0,1%	0,1%	0,0%	0,0%	0,0%	0,2%	0,0%	0,1%	0,0%
7	0,0%	0,0 %	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
8	0,0%	0,0 %	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%

In which subject categories are multidisciplinary journals mostly indexed? Figure 1 provides an answer to this question, showing, for each scientific area, the "map" of where journals are most concentrated in terms of indexation categories. Journals classified in the ANVUR lists and indexed in Scopus appear particularly in the ASJC categories "Social sciences" and "Arts and humanities", as expected. Journals in Economics and Statistics show however a more pronounced multidisciplinary profile, with a considerable number of journals pertaining to different Scopus domains. In History, Philosophy and Education, scientific journals include a relevant component indexed in the medical area, mostly associated with neurosciences and psychology, epidemiology and public health. In Architecture, 'Literary Studies' and Law most journals are indexed in the expected categories ("Arts and Humanities" and "Social Sciences").

a) Scientific Journals



b) Class A Journals

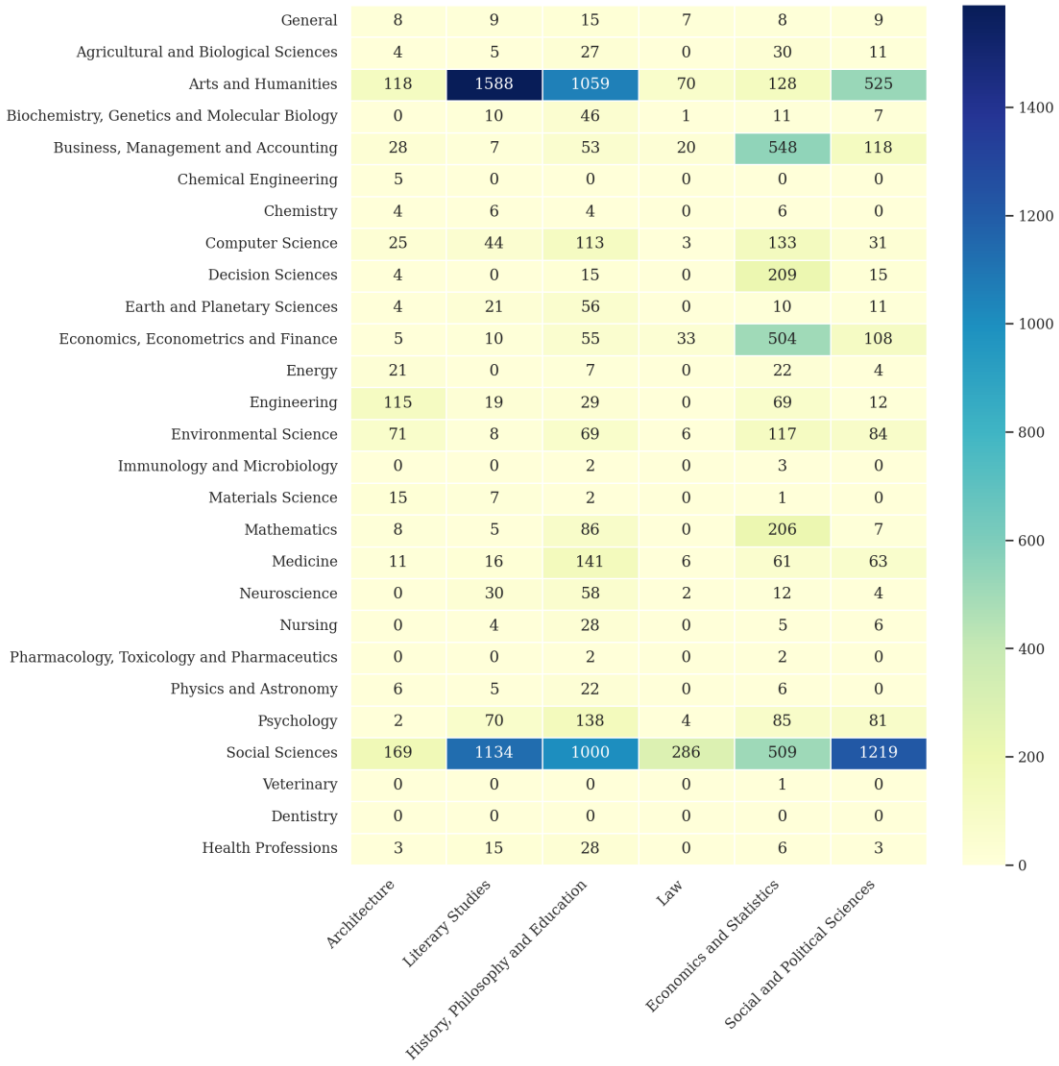


Figure 1. Journals by disciplinary field and ASJC code.

Multidisciplinarity in ANVUR's classification: assessing the presence across multiple areas

A similar analysis may be performed to check whether ANVUR journals are classified in only one or multiple Italian research areas. Table 3 shows that over 65% of scientific journal are indeed monodisciplinary, i.e., they are classified only in one of the 6 disciplinary areas of interest; on the other hand, a very limited number of journals is fully multidisciplinary, i.e., it is classified in all the areas (0,2%). However, overall, 35% of scientific journals are indeed classified at least in two areas, showing a remarkable degree of multidisciplinarity of the classification. On the other hand, the A-Class classification is more discipline-specific: only 17% of journals are indeed recognised as A-Class in more than one area, probably also since

the classification serves the scope of identifying adequate candidates for the National Scientific Qualification procedure, which is indeed granted on a disciplinary basis.

Table 3. Multidisciplinary of ANVUR' journals with respect to the Italian disciplinary fields.

Classification of journals by disciplinary areas	N. of scientific journals	N. of A-Class journals
Journals classified in one disciplinary area	15,373	6,396
Journals classified in two disciplinary areas	5,271	1,161
Journals classified in three disciplinary areas	1,927	176
Journals classified in four disciplinary areas	657	35
Journals classified in five disciplinary areas	176	0
Journals classified in six disciplinary areas	52	7
Total	23,456	7,775

Finally, tables 4 and 5 provide information about overlapping classification among disciplines for scientific and A-class journals, respectively: each cell of the tables report the share of journals that are classified in both the row and column disciplines, the share of journals that are classified only in one discipline being represented on the diagonal of the matrix. The colour scale (blue for scientific journals, red for A-Class) visually highlights the cases of major interchange among disciplines. Most scientific journals are monodisciplinary in all areas (table 4); however, journals classified in Architecture are often classified also in other areas (but not in Law); 'Literary studies' journals are also found in History, Philosophy and Education, and vice versa, with the latter discipline being also interrelated with Social and Political Sciences. Law journals are indeed classified also in other disciplines but in Architecture. Most journals in Economics and Statistics are monodisciplinary, with some interchange with History, Philosophy and Education and Social and Political sciences. Lastly, Social and Political Sciences journals are more multidisciplinary with respect to those of other areas, being most of the time classified also in other disciplines.

A-Class journals are more disciplinary concentrated, as results from by the high proportion of journals on the main diagonal of the matrix (table 5). More specifically, around ¾ of A-Class journals are indeed monodisciplinary in Literary Studies and Law, and over 60% in Economics and Statistics. Most journals are instead at least present in two areas in Architecture and Social and Political Sciences. Interchange is particularly strong among History, Philosophy and Education and Social and Political Sciences, and among the latter and Economics and Statistics. Some mutual recognition of A-Class journals also occurs in Literary Studies and History, Philosophy and Education. Architecture show moderate commonalities in journals

classification with all the other areas, with no particular area emerging. Finally, overlap with other disciplines seldom occurs in Law, with however just about 10% of journals being also classified in Social and Political Sciences.

Table 4. Overlap matrix of scientific journals.

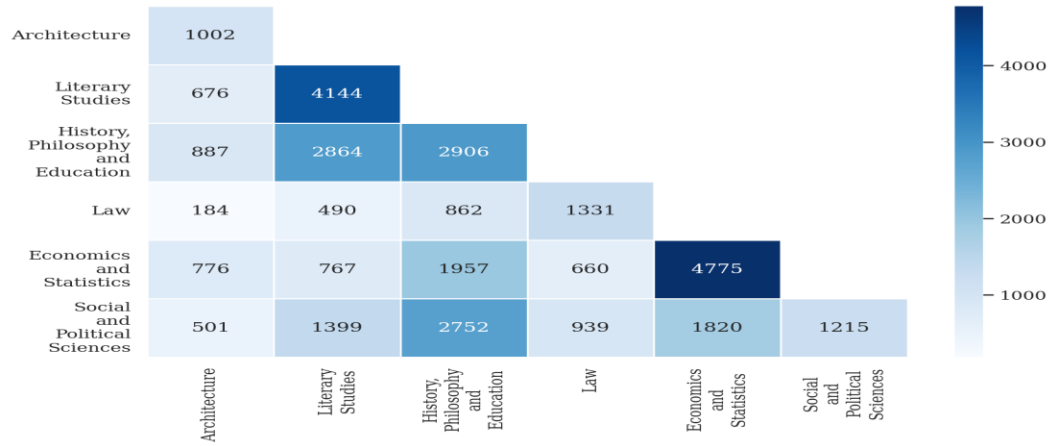
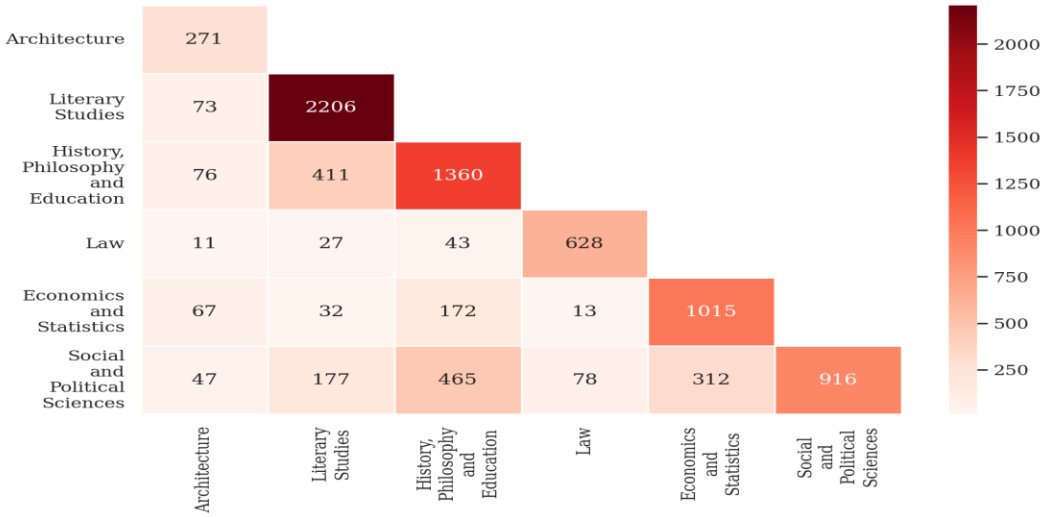


Table 5. Overlap matrix of A-Class journal.



Limitations and Future Research

This study presents a preliminary and journal-level analysis of how multidisciplinarity is acknowledged within the Italian SSH journal classification system. While it provides meaningful insights into the structural and disciplinary dynamics of the ANVUR framework, several limitations must be acknowledged. First, the reliance on Scopus and its ASJC classification system, while methodologically justified, excludes journals not indexed in this database, potentially overlooking relevant outlets, particularly those published in national

languages or with limited international circulation. Moreover, the analysis focuses exclusively on journal-level metadata, without assessing the content or citation patterns of individual articles, which might offer a more nuanced understanding of interdisciplinary practices.

It should also be noted that, on the basis of the available data, the degree of interdisciplinarity cannot be appropriately addressed, as it requires a more refined analysis at the level of individual research outputs and within specific collaborative research networks—an avenue we leave for future research. To assess interdisciplinarity at the level of individual publications, it might be fruitful to conduct citation-based analyses, investigating whether an article references sources from diverse disciplines or is cited by scholars from different fields, suggesting cross-disciplinary impact. Similarly, semantic analysis using text-mining techniques could help reveal whether a publication integrates theories, methodologies, or conceptual frameworks from multiple disciplines, thereby offering further validation of its interdisciplinary nature.

Beyond the level of individual publications, collaborative networks offer another valuable lens through which interdisciplinarity can be assessed. Co-authorship network analysis—applied to datasets such as the national academic and research information system managed by the Italian Ministry of University and Research (LoginMIUR)—could be used to identify patterns of collaboration among researchers from different disciplinary backgrounds. For example, frequent co-authorship between scholars affiliated with distinct research areas may reflect an interdisciplinary research environment. Analyzing institutional affiliations may also shed light on whether such collaborations occur across departments or institutions, thus reflecting broader structural trends. Network metrics such as degree centrality (measuring the extent of a researcher's collaborative connections) and betweenness centrality (indicating the extent to which a researcher bridges different communities) could help quantify the role of interdisciplinary collaborations in shaping the scientific landscape. Such metrics may highlight whether cross-disciplinary interactions are occurring between traditionally separated domains—e.g., between the humanities and hard sciences—or within subfields of a single domain.

Future research adopting these complementary approaches would allow for a more comprehensive evaluation of interdisciplinarity, moving beyond the limitations of rigid journal-based classifications and towards a more dynamic and integrative understanding of how interdisciplinary knowledge is produced and disseminated within the Italian SSH landscape.

Conclusions

The analysis conducted in this paper reveals the structural tensions and limitations embedded in the current Italian journal classification system when it comes to the recognition and valorization of multidisciplinary research in the Social Sciences and Humanities (SSH). While ANVUR's classification provides a crucial framework for academic evaluation - particularly through its influence on habilitation procedures and career advancement - it remains strongly anchored to a disciplinary logic that does not fully accommodate the evolving nature of contemporary scholarly inquiry.

The study shows that multidisciplinarity is only partially reflected in the classification system. On one hand, there is clear evidence that a non-negligible share of journals, especially among those indexed in Scopus and particularly in fields such as Economics and Literary Studies—do engage with multiple subject categories, suggesting an openness to cross-disciplinary perspectives. On the other hand, this recognition is uneven and often limited to scientific journals rather than A-Class ones, which are more strictly bound to disciplinary criteria, likely reflecting the sectorialized structure of the National Scientific Qualification process. Fields such as Law and, to a lesser extent, Literary Studies show a marked tendency toward monodisciplinarity, potentially narrowing the space for cross-boundary dialogue and innovation.

Moreover, the use of ASJC codes from Scopus as a proxy for multidisciplinarity, while methodologically sound and aligned with regulatory constraints, also reveals the dependency of national evaluation systems on bibliometric infrastructures that may not be fully suited to the specificities of SSH research. In this context, the lack of a dedicated mechanism for capturing multidisciplinarity at the journal level within the ANVUR framework emerges as a critical gap. The tendency to evaluate research outputs through the lens of disciplinary classifications may inadvertently penalize those contributions that, by their very nature, do not fit neatly within established academic boundaries.

From a policy perspective, the findings of this study call for a reconsideration of the principles and procedures underpinning journal classification in SSH. In particular, there is a need to introduce greater flexibility in how multidisciplinarity is assessed and rewarded. This may include recognizing journals with broader disciplinary scope, facilitating multiple area classifications more systematically, and reducing the weight of strict disciplinary silos in research evaluation. Failure to address these issues risks reinforcing an academic ecosystem that is ill-equipped to respond to the complex societal challenges that demand integrative, cross-disciplinary approaches. Ultimately, while the current classification system provides a necessary structure for the governance of academic evaluation, it should evolve to reflect the increasingly hybrid and dynamic nature of SSH scholarship. A more inclusive and nuanced approach to multidisciplinarity would not only enhance the fairness and accuracy of evaluation procedures but also contribute to fostering a research environment that supports innovation, dialogue across disciplines, and the production of knowledge that is both academically robust and socially relevant.

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