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Who gets in, who gets cited, who gets promoted: informal networks in Kazakhstani academia

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Abstract

This paper explores the ambivalent role of informal networks in shaping academic careers as well as academic and research integrity in Kazakhstan. Drawing on 23 in-depth interviews with senior university leaders, the study examines how informal networks both facilitate scholarly work and undermine merit-based governance. Building on Ledeneva's typology of informal networks, the paper identifies four coexisting forms—solidarity, domination, redistribution, and market-oriented networks—and analyzes how each shapes hiring, promotion, authorship, funding allocation, and research evaluation. Although these networks often compensate for institutional gaps arising from rapid internationalization and metric-driven reforms, they also legitimize practices such as favoritism, guest authorship, citation manipulation, and informal interference in evaluation processes. The findings challenge individualistic understandings of academic misconduct by showing that questionable practices are embedded in relational obligations, hierarchical dependencies, and structural incentives. The paper concludes by discussing implications for academic integrity policies and argues for context-sensitive approaches that recognize the persistence and ambivalence of informal networks rather than seeking to eliminate them.

Keywords Academic integrity, Corruption, Higher education, Informality, Kazakhstan, Research integrity

Introduction

Consider early-career researchers who are incorporated into informal academic networks through the support of senior professors. Through these networks, they receive advice on publishing, are introduced to potential collaborators, and gain access to information about job openings and funding opportunities that are not widely available. Such connections can enhance their confidence and facilitate their professional advancement. By contrast, equally qualified researchers who lack access to such networks may remain excluded from these same opportunities, despite possessing similar or even stronger academic credentials. Indeed, many academics routinely support students, early-career



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researchers, and colleagues through mentorship, personal tutoring, and the sharing of professional opportunities. These relational practices are widely regarded as central to sustaining a healthy and productive scholarly community. Academic networks often institutionalize such support by creating spaces for peer learning, knowledge exchange, and collaboration. For early-career academics in particular, networks can help individuals navigate professional uncertainty, build confidence, and reduce isolation, while also facilitating access to co-authorships, employment opportunities, and informal information about academic labor markets. In these respects, networks function as key mechanisms through which careers are enabled and scholarly communities are reproduced.

At the same time, the role of networks in academia is fundamentally ambivalent, as the same relational ties that generate support and opportunity can also reproduce inequality and exclusion. Networks may be conducive to unclear expectations, workload pressures, and the widespread precarity of academic employment, which can limit their effectiveness and generate frustration. When poorly designed, networks may reinforce rather than alleviate existing inequalities. Moreover, network-based practices often privilege those who already possess social capital or are embedded in elite academic circles, thereby marginalizing scholars with fewer connections, caring responsibilities, or limited access to influential spaces. In this way, networking can obscure merit-based achievement and contribute to an increasingly competitive and inequitable academic environment (Heffernan 2021; Price et al. 2015).

This ambivalence is evident, for example, in the Chinese context, in which personal networks (*guanxi*) play a central role in academic life and beyond (Horak and Restel 2016; Li and Bian 2024). On the one hand, *guanxi* can provide vital access to supervision, research resources, publication opportunities, and career advancement, particularly within hierarchical institutional settings where formal procedures may be opaque or underdeveloped. On the other hand, reliance on *guanxi* can reinforce dependence on powerful patrons, limit transparency, and exclude those who lack access to influential networks, thereby entrenching unequal power relations and fostering mistrust within academic communities (Wang et al. 2025). Networks thus operate simultaneously as channels of support and as mechanisms of control.

Similar ambivalence is visible across other higher education systems. While networks can facilitate mentorship, continuity, and the transmission of academic traditions, they can also slide into nepotism, cronyism, or patronage when recruitment, promotion, or resource allocation systematically favor insiders over more qualified outsiders. Empirical studies document such dynamics in diverse contexts, including Turkey, in which favoritism persists across academic ranks (Çelik & Razi 2023a), and Sweden, in which investigations have revealed hiring practices marked by short application windows, limited competition, and a strong preference for internal candidates, suggesting predetermined outcomes (Myklebust 2020). In Italy, senior academics with substantial institutional authority often shape hiring and promotion to favor former students or close associates, transforming what might otherwise be legitimate academic lineage into closed patronage systems (Guerra 2018; Zinn 2018).

At its most extreme, network-based favoritism undermines fair competition by making academic advancement contingent on personal loyalty rather than scholarly merit, thereby entrenching elite groups and potentially weakening research quality. A related manifestation is academic inbreeding, whereby institutions preferentially hire their own

graduates (Yudkevich et al. 2015; 2025). While such practices may be justified as a means of preserving intellectual coherence or institutional identity, they can also foster insularity, limit intellectual diversity, and further consolidate existing academic networks.

While the bright and dark sides of informal networks have been widely examined in various disciplines (Horak et al. 2020; Ledeneva 2018, 2024; Polese 2023; Shekshnia et al. 2021), systematic research on the ambivalence of networks within academia remains limited (Denisova-Schmidt 2023). This paper addresses this gap by examining how academic networks simultaneously enable and constrain academic careers, and by analyzing their potential implications for academic integrity policies, drawing on an in-depth case study of Kazakhstan. More explicitly, our paper focuses on the following research questions: What types of networks can be identified in Kazakhstani academia? How do these networks shape academic operations, particularly research, in both positive and negative ways, from the perspective of senior administrators?

Kazakhstan represents an interesting case for analysis of the ambivalence of informal networks and its impact on academic integrity. Kazakhstan's higher education system has been undergoing an exceptionally rapid transformation, creating a landscape that is simultaneously fast-growing, increasingly internationalized, and profoundly shaped by networked relationships (Ahn et al. 2018; Kuzhabekova and Almukhambetova 2017; Oka 2019). Ambitious, top-down internationalization reforms, including mandatory publications in high-impact journals indexed in Scopus and Web of Science, requirements for English-language research output, and the expansion of PhD-qualified staff, have been introduced on top of a still-developing academic infrastructure, producing significant pressure to demonstrate global competitiveness (Bayanbayeva 2025; Kuzhabekova 2020, 2022; Moldashev and Tleuov 2022). This accelerated shift toward international standards is unfolding within a governance structure characterized by robust state oversight, in which ministerial bodies continue to play a central role in academic evaluation, degree recognition, and the adjudication of misconduct.

In addition, Kazakhstan's academic environment is marked by vibrant yet often ambivalent networks: junior scholars depend heavily on senior academics for access to publication avenues, conference participation, and research opportunities, while commercialized academic services—from rapid-publication schemes to paid authorship—operate alongside legitimate international collaborations. The result is a higher education system that is outward-looking and ambitious, but still deeply reliant on hierarchical, personalized networks that shape the distribution of opportunities, resources, and academic careers.

The remainder of the paper is structured as follows. First, we provide our theoretical framework and a summary of relevant prior research (Section “[Theoretical framework and relevant prior research](#)”). We then present our dataset (Section “[Research design](#)”) and empirical findings (Section “[Results](#)”). Further, we discuss the results in relation to policies on academic integrity (Section “[Potential implication for academic integrity policies](#)”). Finally, we conclude the paper (Section “[Conclusion and outlook](#)”).

Theoretical framework and relevant prior research

Informal networks are usually defined as social relationships that serve a functional role in navigating formal constraints. From the perspective of participants (*insiders*), these practices are often described as mutual assistance or expressions of personal trust;

from the perspective of observers (*outsiders*), however, the dynamics are more complex (Horak et al. 2020). Indeed, in certain contexts, informal networking may verge on corrupt practices, such as favoritism and its subforms—nepotism and cronyism, in which relatives or close associates are privileged—or patronage and clientelism, in which benefits are allocated to hierarchical dependents.

Ledeneva (2018) suggested a typology of informal networks (Ledeneva 2018, pp. 9–15), which was later adapted for the analysis of organizational and business environments (Minbaeva et al. 2023). Although originally designed to explain how multiple logics of exchange coexist within complex societies, this framework is equally instructive for understanding higher education systems, in which formal regulations intersect with tacit norms, personalized expectations, and informal channels of influence.

Solidarity networks are relatively closed and affective in nature. Their foundations lie in deep, often ascribed bonds such as kinship, lineage, or a strong sense of shared identity and belonging. Membership tends to be highly exclusive, creating tightly knit communities governed by powerful norms of mutual responsibility, trust, and reciprocity. These norms are enforced stringently, and violations may result in severe social sanctions, including loss of status or ostracism. Because these networks are anchored in emotion, identity, and a quasi-sacred sense of obligation, they tend to be remarkably resistant to change. Examples include *rushyldyq* (clanism) in Kazakhstan (Minbaeva and Muratbekova-Touron 2013, 2018) and *uruuchuluk* in Kyrgyzstan (Ismailbekova 2018), in which loyalty to one's lineage continues to shape social and economic practices despite efforts to strengthen formal institutions. Consequently, the informal institutions generated by solidarity networks exhibit the highest degree of persistence.

Domination networks, by contrast, are relatively closed but instrumental. Although similarly exclusive and difficult to penetrate, these networks rely less on affective ties and more on shared elite status and a rational calculation of mutual benefit. They are frequently reproduced through prestigious institutions—such as elite universities (*grandes écoles* in France) (Alexandre-Bailly and Muratbekova-Touron 2018) or private schools associated with “old boy” networks in the United Kingdom (Kirby 2018)—that function as gateways to privileged social circles. Cohesion is maintained through a collective sense of belonging to a powerful group that controls valuable resources. While the institutions associated with domination networks are durable, they are also more contingent than those rooted in solidarity. Their persistence depends on the continued instrumental value that members derive from sustaining these connections. If the perceived benefits decline, these networks can adapt or reconfigure, making their persistence high but not immutable.

Redistribution networks are relatively open and affective. Compared with closed networks, they are broader, more inclusive, and typically grounded in quasi-familial ties, long-standing friendships, or shared social experiences such as schooling or participation in communal activities. Emotional engagement and trust remain crucial, yet the openness of these networks allows individuals to mobilize a wide circle of contacts when assistance is required. Functioning much like extended kinship groups, redistribution networks maintain their relevance by adapting to shifting formal environments. While the content of what is exchanged may evolve—from securing scarce goods to facilitating administrative permissions—the underlying logic of distributing resources through trusted and emotionally resonant channels endures. Well-known variants include

guanxi in China (Yang 2018; Li and Bian 2024), *inmaek* in South Korea (Horak 2018), and *wasta* in the Middle East (Redman 2018). Their persistence is therefore moderate, combining affective durability with a capacity for pragmatic adjustment.

Finally, *market-oriented networks* are relatively open and instrumental. They represent the most transactional and pragmatic form of informal interaction, often emerging as responses to bureaucratic inefficiency, resource scarcity, or rigid formal procedures. Relationships within these networks are typically loose, task-oriented, and short-term, centered on direct exchanges of favors or services without deeper emotional commitment. Because they lack strong affective or identity-based ties, market-exchange networks are highly sensitive to shifts in the formal institutional environment. When official procedures become more transparent and efficient, incentives to rely on such networks decline, prompting their swift reconfiguration or dissolution. Examples include *blat* or *svyazi* (administrative resources) in Russia (Ledeneva, 1998, 2008) and *vruszki* in Bulgaria (Chavdarova 2018). As a result, the informal institutions associated with market-oriented networks display the lowest degree of persistence.

Existing research shows that informal networks can have both positive and negative effects in organizations. On the one hand, they may enhance collaboration, communication and knowledge sharing when formal structures fail to do so. When there are no structures for formal collaboration, informal networks can foster collaboration among employees at different levels (Horak et al. 2020). They also facilitate the development of trust and social support, which can improve job satisfaction and organizational commitment (Kokh and Denner 2022). In addition, they can improve organizational adjustment and the training of new employees in rapidly changing organizational environments by providing mentorship opportunities by more experienced colleagues (Ben-Peretz and Schonmann 2021).

At the same time, previous research has documented a *dark side* to informal networks. Research in organizational studies has highlighted that when relational ties override formal meritocratic processes, informal networks can foster corruption and favoritism. Informal connections may give preferential treatment to members of the in-group at the expense of outsiders, reinforcing inequality and ethical concerns (Horak et al. 2020; Suseno and Horak 2024), and posing challenges for diversity and inclusion (Suseno and Horak 2024). This insider preference can lead to preferential treatment despite preemptive formal policies and structures. *Hidden pipelines* for career advancement and informal mentorship often favor dominant groups and perpetuate gender or racial inequalities (see studies on informal career guidance access), suggesting that network-based advantages can compound systemic biases over time (Suseno and Horak 2024).

Importantly, informal networks can directly undermine organizational change initiatives, including policy changes. Prior research in organizational communication has revealed that the spread of negative information, such as rumors, gossip, and unverified commentary, via informal networks can increase employee resistance to change and reduce individual performance during change processes (Kocher 2020; Vanha-Perttula 2025). This effect is particularly notable in settings where formal channels have failed to provide timely information.

Research design

This paper draws on qualitative interview data collected in Kazakhstan between January and June 2025. In total, 23 in-depth semi-structured interviews were conducted with administrators working in universities, research institutes, technology parks, data centers, science training schools, and the National Academy of Sciences. All participants were involved in research either through administrative oversight or direct participation. Interviews were conducted in formats suited to participants' availability and preferences: 13 interviews were held online and 10 were conducted face-to-face. The first seven interviews took place online because research team members were located in different countries and time zones, while participants were based in Kazakhstan. The remaining 16 interviews were conducted during an on-site data collection visit by two members of the research team in June 2025; of these, 10 were face-to-face and six were conducted online. Interviews were conducted in the languages preferred by the participants, reflecting common professional languages used in Kazakhstani academic and administrative settings.

Participants predominantly held upper-management or leadership positions, including vice-rectors, deans, directors, heads of departments, and comparable roles. As such, the sample comprised individuals with substantial authority over strategic planning and decision-making within their institutions. Across universities, the boundary between academic and administrative roles was often fluid, with many respondents simultaneously holding research, teaching, and administrative responsibilities. This blurring of distinctions between "faculty" and "administrative staff" represents an important contextual feature shaping participants' perspectives and experiences of research misconduct.

Purposeful maximum variation sampling was employed to capture diverse perspectives on research misconduct among administrators (Patton 2015). This approach involves deliberately selecting participants who differ across key characteristics, thereby ensuring a wide range of experiences and viewpoints (Creswell 2012). As detailed in Table 1, participants varied by gender, institutional type, academic discipline and field, professional role, geographic location within Kazakhstan, and public versus private affiliation.

Participants were recruited through two main channels. The first involved collaboration with gatekeepers at universities and research-related organizations. One member of the research team initially contacted two gatekeepers with extensive professional networks spanning universities, research institutes, and other research organizations across Kazakhstan. These gatekeepers distributed recruitment letters to administrators who met the study's eligibility criteria. Their involvement was instrumental, as they were well positioned to identify individuals with in-depth knowledge of institutional research environments. The second recruitment channel involved reviewing publicly available information on university websites to identify administrators whose roles were closely linked to research governance, such as vice-rectors for science and innovation, heads of research departments, and scientific secretaries. These individuals were contacted directly via email with an invitation to participate.

Data were collected using in-depth semi-structured interviews, a method chosen for its flexibility and capacity to facilitate detailed exploration of participants' experiences while allowing interviewers to pursue emergent topics (Creswell 2012). This approach

Table 1 Participant demographic information

Participant Code	Gender	Institution	Discipline	Field	Region of Kazakhstan	Form of Ownership
Administrator 1	M	University	International Relations	HASS	South	Public
Administrator 2	F	University	Education	HASS	South	Public
Administrator 3	F	University	Education	HASS	Central	Private
Administrator 4	F	University	Education	HASS	Central	Private
Administrator 5	F	University	Education	HASS	South	Public
Administrator 6	M	Non-University	Chemical Engineering	STEMM	South	Public
Administrator 7	M	Non-University	Biological Sciences	STEMM	East	Public
Administrator 8	M	Non-University	Seismology	STEMM	South	Public
Administrator 9	M	University	Education	HASS	South	Private
Administrator 10	F	Non-University	Literature	HASS	South	Public
Administrator 11	F	University	Sociology	HASS	South	Private
Administrator 12	F	Non-University	Linguistics	HASS	South	Public
Administrator 13	F	University	History	HASS	South	Public
Administrator 14	F	University	Medicine	STEMM	South	Public
Administrator 15	F	Non-University	Sociology	HASS	Central	Private
Administrator 16	F	Non-University	Sociology	HASS	Central	Private
Administrator 17	F	University	Economics	HASS	Central	Private
Administrator 18	M	University	Regionalism	HASS	Central	Private
Administrator 19	M	University	Physics	STEMM	Central	Public
Administrator 20	F	University	Philosophy	HASS	Central	Public
Administrator 21	F	University	Philosophy	HASS	Central	Public
Administrator 22	F	University	Philology	HASS	East	Public
Administrator 23	M	Non-University	Chemistry	STEMM	Central	Public

Note. STEMM=Science, Technology, Engineering, Mathematics, and Medicine; HASS=Humanities, Arts, and Social Sciences

is particularly well suited to examining complex and sensitive issues such as research misconduct, as it balances consistency across interviews with openness to participants' perspectives.

Each interview was conducted by two members of the research team using a collaborative co-interviewing approach (Velardo and Elliott 2021). Three team members rotated interview pairings across sessions. This method enhanced methodological rigour by allowing interviewers to draw on complementary perspectives, probe emerging themes more effectively, and reflect collectively during post-interview debriefings (Rosenblatt 2012). Such reflexivity was especially valuable given the complexity of the topic.

Data were analyzed using applied thematic analysis (Guest et al. 2012), an approach chosen for its systematic integration of structural and content-driven coding. Accounts describing academic practices from an outsider perspective were coded inductively to identify patterns emerging from the data, including favoritism, nepotism, cronyism, patronage, and clientelism. By contrast, accounts concerning how participants understood and navigated networks from an insider perspective were coded deductively using Ledeneva's (2018) typology of informal networks, which distinguishes solidarity, domination, redistribution, and market-oriented networks. Analysis began with repeated readings of the interview transcripts to develop familiarity with the data and to identify preliminary patterns, including recurring ideas, linguistic cues, and shifts in participants' accounts. The transcripts were then segmented into meaning units and coded

using a structured codebook developed iteratively throughout the analytic process. The codebook included interview topics, code labels, short and extended definitions, and explicit inclusion and exclusion criteria, thereby supporting conceptual clarity and consistency in coding (Table 2). Coding was conducted in two stages: structural coding was first used to organize responses according to the main interview topics and questions (Table 3), followed by content coding to identify substantive themes within participants' narratives (Table 4). Related codes were subsequently grouped into higher-order themes that captured participants' experiences and interpretations and addressed the research questions.

Results

Various forms of informal networks operate within Kazakhstani academia, differing in their purposes, composition, and degrees of influence. Understanding this diversity is essential for analyzing how such networks shape academic integrity, access to opportunities, and institutional culture. In what follows, we first examine informal networks as perceived from an outsider perspective (4.1), then turn to an insider view that illuminates how these networks function in everyday academic practice (4.2), and finally highlight their dynamic, fluid, and often overlapping nature (4.3).

Informal networks in Kazakhstani academia from the outsider perspective

One way we analyzed the data was by focusing on how academics perceived informal networks as outsiders. Our findings reveal how various forms of favoritism are woven into everyday academic life, shaping decisions related to hiring, student assessment, dissertation defense, and the allocation of research funding. Nepotism is most visible in situations in which the students' academic progress is protected through family or political connections. One research administrator described how high-status families can obstruct sanctions for plagiarism: *"When students are found to have plagiarized and are about to be expelled, parents or the connections of high-ranking individuals start calling the university leadership [...] they give the student another chance to pass the plagiarism check, or they cancel the expulsion"* (Administrator 1). Such interventions signal to both students and faculty that institutional rules are negotiable for those with access to power, undermining the perceived legitimacy of academic standards.

Cronyism is most evident in hiring and committee formation, in which personal networks and informal loyalties often outweigh scholarly merit. As one senior academic explained, *"Every department head has their own preferences in choosing faculty. Here it happens very often: acquaintances or friends ask for a favor [to employ someone]"* (Administrator 10). The same dynamics extend into dissertation councils, described as assembled more on the basis of personal connections than expertise, where *"[...] professors simply gather and sit there just because they were invited"* (Administrator 2). These practices produce closed professional circles that protect their members and exclude outsiders, perpetuating inequality within academic institutions and weakening incentives to uphold high scholarly standards.

Patronage further complicates the academic environment, enabling senior scholars or administrators to intervene in evaluation processes to secure favorable outcomes for their protégés. Interviewees frequently emphasize that dissertation committees often operate with the intention of ensuring candidates' success regardless of scholarly merit.

Table 2 Structural coding – the codebook

Interview topic	Code label	Short definition	Extended definition	Criteria for inclusion/exclusion	Example
academic writing/publishing	Questionable authorship	Guest authorship	Guest authorship – inclusion of an individual as an author despite their having made little or no substantial intellectual contribution to the research or manuscript.	most recent examples, happened in Kazakhstan, personal experience and/or observed experience, focus on faculty – inclusion	"My colleagues asked, 'Would you like to be a co-author too?' I said, 'yes, I'm interested, let's do research.' But they replied: 'the article is already finished, payment is required, and they were open to including me if I wanted' There is a price list depending on whether you want to be second author, third author, and so on"
		Paid authorship	Paid authorship – attribution of authorship in exchange for money or other material compensation rather than genuine scholarly contribution.	less recent examples, occurring outside Kazakhstan, based on indirect experience rather than personal and/or observed experience, focus on students – exclusion	
		Seniority-based authorship	Seniority-based authorship – assignment of authorship position, often prominently, on the basis of institutional rank, age, or status rather than actual contribution to the study.		
		Coerced authorship	Coerced authorship – inclusion of an individual as an author because of direct or indirect pressure, authority, or fear of negative consequences, rather than voluntary recognition of contribution.		
		Authorship through informal obligation	Authorship through informal obligation – attribution of authorship driven by interpersonal ties, reciprocity, loyalty, or social expectations within informal networks rather than formal authorship criteria.		

Note: Excerpts from the full versions; expanded definitions based on Tauginiénė et al. (2018)

As one interviewee noted, professors on such committees are often *“interested in making sure that the dissertation gets defended”* (Administrator 2). Patronage extends into performance evaluation and remuneration systems as well. Because salaries and bonuses are negotiated privately, one faculty member remarked, *“Salary is determined individually [...] the information is kept secret”* (Administrator 3). In such systems, relationships with administrators can have a greater impact on income than academic accomplishments, encouraging loyalty to individuals rather than commitment to scholarly work.

Clientelism links these dynamics by reproducing long-term reciprocal expectations between patrons and clients. Interviewees referred to widely discussed national scandals related to research funding, suggesting that access to grants depends not only on project quality but also on political and institutional loyalties. Similar patterns appear in admissions and faculty selection, in which departments routinely prioritize candidates who are socially or professionally convenient rather than academically strong. As one academic put it, *“Departments push them out [...] the department head has their own preferences”* (Administrator 10). These reciprocal networks shape academic careers by tying advancement to compliance with existing informal hierarchies rather than to research excellence or pedagogical competence.

Across interviews, participants described these practices not as isolated incidents but as structural features of Kazakhstani academic life, shaped by post-Soviet institutional legacies, weak enforcement mechanisms, and deeply embedded cultural norms surrounding hierarchy and loyalty. Altogether, nepotism, cronyism, patronage, and clientelism have created an academic environment in which formal regulations coexist with—and are frequently overridden by—informal practices. As a result, academic integrity depends less on institutional design than on individual ethics, and genuine meritocracy remains difficult to achieve.

Informal networks in Kazakhstani academia from the insider perspective

In addition to capturing participants' perspectives as outsiders of informal networks, we also focused on academics' understanding of these networks as insiders. The types and dynamics of informal networks we observed were consistent with Ledeneva's (2018) framework. In the following section, we summarize the types and the dynamics of informal networks from the insider perspective.

Solidarity networks

Solidarity networks refer to informal, affective communities grounded in reciprocal care, shared moral expectations, and strong interpersonal obligations. Within academic environments, these networks frequently function through tacit norms of loyalty, discretion, and mutual non-interference; deviation may result in reputational loss or social exclusion. As one senior administrator recalled, *“there were researchers in our department who acted as snitches, but what is most interesting is that no one ever liked them; perhaps no one said it directly to their face, but they were not liked”* (Administrator 12). These informal sanctions help maintain cohesion and discipline even when formal accountability mechanisms remain weak.

In Kazakhstan these networks can be based on kinship, tribal-membership, or generational hierarchies, with colleagues who have been trained by earlier generations of academics maintaining affinity to their mentors even after their retirement. These informal

Table 3 – Structural coding: the interview guide

Experience Summary	In your view, what are the three most problematic types of research misconduct in Kazakhstan today? Why do you consider these three types especially problematic compared with other forms of misconduct? How do these forms usually manifest themselves in practice? Could you give examples from your personal experience, directly observed cases, or cases you know about through colleagues?
Main drivers contributing to research misconduct	What do you think are the main factors contributing to research misconduct in Kazakhstan? To what extent does pressure to publish, defend dissertations, or meet formal performance indicators contribute to misconduct? How important are gaps in researchers' education, methodological preparation, and understanding of research ethics in producing misconduct? What role do university-level factors play, such as supervision, departmental culture, internal policies, promotion criteria, or weak enforcement? What role do state policies or national research regulations play in encouraging, enabling, or failing to prevent misconduct?
Ambivalence	Are there situations in which certain forms of research misconduct become normalized or tacitly tolerated in academic life in Kazakhstan? If so, which practices and under what conditions? Why do some questionable practices come to be regarded as normal, understandable, or structurally inevitable, even when they violate formal standards of research integrity? Are there gray zones in which the boundary between legitimate adaptation to institutional pressures and research misconduct becomes blurred? If so, what are the most typical examples? To what extent are researchers' attitudes toward misconduct shaped by academic culture, professional socialization, and hierarchical relations within universities and research communities? Are there important disciplinary differences in how research misconduct is understood, practiced, or tolerated? If so, what features of particular disciplines make some forms of misconduct more likely or more difficult to challenge?

Note: Excerpts from the full versions

networks may create many positive outcomes. For example, they improve organizational commitment and culture, supplement ineffective communication channels, and encourage collaboration in the relatively centralized and bureaucratic context of Kazakhstani academia. As one researcher noted: *"In my own publications, for example, I have 113 co-authors. Why? Because every one of them contributed to the experiment. Some washed the dishes, some cleaned after the animals, some carried out the slaughter, others worked at the muffle furnace. My moral principles simply would not allow me to exclude them. Although I am often told that authorship should be limited only to those who need it professionally or who played a major role in writing the paper, I felt uncomfortable doing that. It felt morally wrong to leave these people out. That is why I tend to include almost everyone as a co-author"* (Administrator 7).

They can also cultivate profound interpersonal care. One striking example involved daily visits to a 96-year-old professor. Colleagues organized support by sending junior scholars to speak with her, assist with writing, and keep her engaged in academic life: *"Her only son passed away. Her grandchildren live in another country. In her old age she was left alone. Then she lost her eyesight. Then she fell and fractured her hip. Of course, the state services helped, but so that she would not feel lonely or suffer, we took turns. We visited her every day. We drank tea together. We talked to her so she would feel needed. We consulted her, asked her to write an article. We sent doctoral students—she dictated, and they wrote. This continued until the end of her life. She remained part of science; she was with us. That's the kind of collective we have"* (Administrator 12).

At the same time, solidarity networks can contribute to favoritism and academic misconduct. For example, they may shape academic evaluation and advancement. Participants described cases in which relatives reviewed dissertations and noted that prominent families could influence expectations for scholarly success. Several respondents also pointed to the normalization of questionable academic and research practices because avoiding confrontation preserves group belonging. One administrator observed, regarding plagiarism and predatory publishing, *"no one stops it"* (Administrator 6). Another example is when seniority hierarchies may influence decisions about authorship in research and leadership appointments on funded projects. As one researcher stated, *"we list [the senior researcher] as the first author because, in our culture, it feels inappropriate to place ourselves ahead of them"* (Administrator 12). Another added, *"the aksakal¹ [the elder] is always the senior member of our team"* (Administrator 8).

In addition, the line between genuine care and obligation with respect to senior scholars and out-of-work support can become blurred. The previously cited example of the senior professor involved both voluntary help from colleagues and mandatory help from doctoral students. As the administrator said, junior scholars were dispatched by her colleagues: *"We sent doctoral students—she dictated, and they wrote. This continued until the end of her life"* (Administrator 12). While such practices express genuine respect, they also generate obligations. Junior researchers cannot easily refuse involvement without risking support for their projects or future advancement, and authorship of resulting publications may become ambivalent.

¹ *Aksakal* (also spelled *aqsaqal*; literally "white beard" in Turkic languages) refers to an elder respected for wisdom, experience, and authority.

Table 4 Coding for content

Data extract	Initial code	Category/ code group	Higher- level theme
"Her only son passed away. Her grandchildren live in another country. In her old age she was left alone. Then she lost her eyesight. Then she fell and fractured her hip. Of course, the state services helped, but so that she would not feel lonely or suffer, we took turns. We visited her every day. We drank tea together. We talked to her so she would feel needed. We consulted her, asked her to write an article. We sent doctoral students—she dictated, and they wrote. This continued until the end of her life. She remained part of science: she was with us. That's the kind of collective we have"	academic writing/questionable authorship misuse of young scholars shared moral expectations/ strong interpersonal obligations. tribal-membership/ generational hierarchies	solidarity networks	informal networks in Kazakhstani academia from the outsider perspective

Note: Excerpts from the full versions

Domination networks

Domination networks in higher education emerge in contexts in which access to resources, career mobility, and academic recognition is governed not by transparent rules but by asymmetric power relations. In contrast to solidarity networks grounded in interpersonal obligation and mutual care, domination networks are explicitly hierarchical and instrumental. They function through prestige credentials, gatekeeping practices, and evaluative control, which privilege certain actors while structurally sidelining others.

One of the recurring themes across interviews was the dominance of foreign-educated elites within university governance, particularly at leading institutions. Individuals with Western degrees hold key roles as department heads, vice-rectors, rectors, and research directors. As one administrator noted, *“mid-level managers like myself, as well as top leadership, were educated abroad—and it is very visible”* (Administrator 2). At several top universities, this hierarchy is formalized through selective career tracks accessible only to those with recognized international credentials: *“to be accepted onto this track, you must hold a degree from an international university or from Nazarbayev University”* (Administrator 17).

While such requirements are publicly described as aligning with global standards and enabling English-medium instruction, they also reproduce symbolic domination. Scholars with strong mobility records, extensive publications, or international collaborations—but holding degrees from Russia, Central Asia, or domestic institutions—find themselves marked as less competitive, not because of scholarly capability, but because of credential status.

Domination networks are equally visible within authorship practices. Several interviewees described expectations that senior scholars be included as co-authors regardless of contribution: *“they have a certain authority [...] you cannot refuse [...] young lecturers are afraid they will lose teaching hours or be dismissed”* (Administrator 4). Another respondent shared an illustrative anecdote: *“A rector at one university, a person of the old school who did not understand what Scopus is, summoned the vice rector for research and demanded: ‘Why don’t I have publications? Why are you not monitoring my publications? Get to work, come on.’”* (Administrator 17). Unethical authorship is effectively pre-programmed into these hierarchical arrangements. Authorship becomes a tool for transforming symbolic authority into quantifiable academic capital, with senior figures claiming space in publications regardless of contribution. Junior scholars do not acquiesce out of collegial respect but out of self-protection—fear of losing teaching hours, jeopardizing promotions, or risking dismissal altogether.

When discussing revolving-door affiliations—cases in which senior faculty and administrators, including rectors, move to the Ministry of Education and then return to university leadership—interviewees were more concerned with institutional continuity. Leadership turnover was described as highly personalized and inconsistent. As one senior scholar explained, *“one rector builds a dormitory for graduate students, another sells the land, and the next tries to restore everything [...] continuity is needed not only in science, but also in administration”* (Administrator 10). Authority remains personalized rather than institutionalized; decision-making reflects the priorities of individuals rather than long-term strategic planning.

Redistribution networks

Redistribution networks in Kazakhstani academia resemble affective, quasi-familial ties that remain permeable to newcomers and can be activated for practical support. Unlike kinship-based solidarity networks or elite, credential-driven domination networks, these arrangements emerge informally from shared professional spaces—universities, disciplinary communities, and the social circles around research activities.

One interviewee described how publication and metric-building have become openly organized on digital platforms, where scholars can join collective citation operations designed to inflate indicators: *“On Facebook there are groups where you can join in order to manipulate impact factor—so that your work is cited. You are listed as a co-author somewhere at the end, maybe 20th, 25th, even 40th, among scholars conducting one study. As a result, one has many publications a year—eight, maybe nine”* (Administrator 4). This interaction contains no emotional or relational reciprocity; instead, it constitutes a quid pro quo—a strategic exchange of visibility for entry into a citation cluster.

Another example relates to requests for authorship inclusion among colleagues: *“Just include me, please. This is how it usually happens among colleagues. ‘Please, please, add me to the article—I really need it; I’m missing just one publication to meet my annual target.’ And then, somehow, they come to an agreement”* (Administrator 16).

Redistribution networks also manifest through citation practices that operate as instruments of reciprocal support. Interviewees described coordinated publication clusters in which colleagues cite one another in advance: *“they all published at the same time [...] even before publication they had already cited each other [...] and will later use this for promotion,”* (Administrator 18). Another respondent characterized this practice as *“completely automatic and artificial”* (Administrator 6). One participant (Administrator 4) linked citation practices to both financial incentives and professional obligations: *“Citation boosting happens, for example, when you pay for it. In Kazakhstan, it turns out, people openly talk about this. You ask your colleague—or even your subordinate—to cite your work, even when it has no relevance to their research.”* These citation circles collectively enhance visibility and bibliometric indicators, reinforcing mutual dependence within informal networks.

Access to publication-related resources inside universities is similarly relational. While some institutions formally reward high-impact publications—*“if your article appears in a good journal [...] you can request financial compensation,”* as one interviewee noted (Administrator 3)—actual access to funding often depends on internal negotiations or affiliation with established research collectives. Those outside these networks may be left to finance publication fees themselves or withdraw from international outlets altogether.

At the same time, redistribution networks can have positive effects. Several interviewees emphasized that informal ties help scholars secure access to interview participants and navigate sensitive themes such as sex education, religion’s influence on society, and even our research on academic misconduct. As one respondent explained: *“Networking in the research field is extremely important [...] when I heard that it was [the name of PI], I immediately understood it was a good team and gladly agreed to the interview”* (Administrator 9).

Market-oriented networks

Market-oriented networks in Kazakhstani academia represent the most transactional and pragmatic layer of informal academic cooperation. Unlike solidarity or redistribution networks, these arrangements are short-term, low-affect, and explicitly instrumental: actors enter them not out of loyalty or hierarchy, but because they need rapid publication, increased bibliometric scores, or professional advancement within rigid evaluation systems.

A particularly illustrative case concerns *pomogaiki*²—informal brokers who mediate the academic publishing market. Their role is inherently dual: they provide genuine assistance while operating at the margins of formal legitimacy. As one participant noted, these intermediaries are *“like the helpers you find in a Turkish bazaar—people who guide you to what you need. They quickly figured out the system, saw an opening [...] most of them are from post-Soviet countries. They offer training on publishing in international journals, invite speakers, and this part is genuinely useful. But they also began developing ties with journals where, through certain corrupt arrangements, they can secure publication.”* (Administrator 15). In this sense, *pomogaiki* emerged as a response to systemic deficits and gaps in knowledge. Although not institutionally embedded, they link scholars to publication venues and international networks, thereby redistributing access to scarce academic resources.

Similarly, paid co-authorship illustrates how market-oriented networks commodify authorship slots. One respondent recounted being invited not to contribute research, but to pay for a position: *“My colleagues asked, ‘Would you like to be a co-author too?’ I said, ‘yes, I’m interested, let’s do research.’ But they replied: ‘the article is already finished, payment is required, and they were open to including me if I wanted’ There is a price list depending on whether you want to be second author, third author, and so on”* (Administrator 2). Authorship becomes priced and graded, reflecting the absence of shared scholarly labor—only transactional entry.

Market-oriented logics also extend to thesis production and defense. As another account shows, degree attainment can be reduced to a purchasable service rather than intellectual contribution: *“We knew someone in the dissertation council who appeared only on defense day. Others had written his work for money. He was the son of prominent local entrepreneurs. They essentially bought the dissertation—I assume for a very high price—because our academic secretary ran around saying: ‘Please leave now, I need to work with him’”* (Administrator 17). In such cases, the defense is not a site of knowledge validation but of contracted delivery, dissolving immediately once the credential is secured.

Even multi-authorship collectives operate transactionally rather than communally. As one interview partner recalled: *“Those articles, there were so many co-authors—just a huge number. That’s how agreements are made. When I wrote my PhD, I also needed high-ranking journals, so people approached me. Since publication costs money, groups form, and, in principle, this makes the work easier”* (Administrator 14). The purpose of the group is not long-term collaboration but cost-sharing to meet publication requirements, after which the collective disappears.

Language editing and correspondence with foreign editorial boards have also become outsourced services: *“Many scholars write in Kazakh or Russian, but handling English*

² The term *“pomogaiki”* comes from the Russian verb *“pomogat”*—to help.

correspondence isn't easy. Some of my colleagues wrote the article themselves, but to get into Q1, they turned to acquaintances—not really companies, but people in the field. I paid simply for the service: translation and communication with the editor” (Administrator 13). These examples show that network ties in market-based networks are functional rather than relational—no loyalty, no hierarchy, only specialist micro-services purchased according to need.

Finally, scarcity of time and bureaucratic pressure accelerate these market arrangements. One participant noted that publication requirements act as coercive incentives: *“The state should be interested in supporting those who must defend their theses. The requirement for publication doesn't push everyone into bad journals, but it serves as pressure. When people must publish quickly, they pool money. A group writes the article together and then pools funds to pay the intermediary organization”* (Administrator 16).

Unclear expectations and outcome ambivalence of informal networks

One of the key findings of our study is the ambivalent nature of informal networks in Kazakhstani academia. Rather than providing guarantees, informality can instead create confusion regarding outcomes and expectations. For instance, results, timelines, responsibilities, network membership, and the applicability of informality in situations in which formal rules do exist are often underspecified and subject to interpretation. This ambivalence creates inefficiencies, undermining both the positive sides of informality and the application of formal rules. Our interviews revealed that even when academics feel supported by professional or interpersonal ties, these relationships may fail to yield the expected benefits and can produce misleading assumptions of security. One senior humanities scholar (Administrator 10) recalled how department chairs encouraged junior colleagues to pursue doctoral studies—*“let's get you into the PhD program”*—only for their contracts to be terminated as soon as they were admitted, with the justification that *“you won't be working during those three years,”* a development the candidate *“could not have imagined in advance.”*

This uncertainty also extends to academic production. Even for those embedded in professional networks, rejecting informal shortcuts may result in significant delays. As one interviewee recounted (Administrator 12): *“You wait and wait, working and writing all the time. First you wait for the editor's reply, then for the reviewers to read it—this can take a long time. One of our doctoral students decided, on principle, that he would not pay a single penny. And he waited four years. Four years! For our global era, that is practically four hundred years. He lost a great deal along the way.”*

The key point here is not simply the duration of the delay, but the structural mismatch between expectations and outcomes: despite being well integrated into a research community, the doctoral student refused to mobilize informal channels and, in doing so, forfeited opportunities available to peers willing to engage with brokers, intermediaries, or collegial favors. His network did not fail—he chose not to activate it. This example illustrates how the perceived availability of informal pathways shapes expectations, even when individuals elect not to use them.

Ambivalence also characterizes expectations around co-authorship. Several interviewees described colleagues who requested authorship with minimal or no scholarly input, yet direct refusal was rare. As one researcher explained (Administrator 19), responses took the form of polite ambivalence (*“yes, yes [...] just not to upset the person”*), and

decisions about inclusion were guided not by contribution but by anticipated future benefit (*"I know this scholar well"*) or tacit reciprocity (*"they may be useful tomorrow"*). These dynamics demonstrate that network ties often operate through assumed obligations rather than explicit agreements; even when they produce discomfort, they are rarely confronted directly.

Crucially, informal claims to status or professional authority do not automatically translate into access to formal procedures. One administrator recounted a case involving ethics approval, requested after an article had already been accepted, but was subsequently delayed due to the missing documentation. The scholar attempted to secure the approval retroactively on the basis of rank (Administrator 14): *"She called me and said, 'I am the head of the department, I am a professor.' I replied that I was truly glad for her but could not grant the request. She insisted that I was 'exceeding my authority' and immediately went to complain to the rector. Later, the vice rector summoned me. I explained the situation, he understood completely, and together we told her: 'we are sorry, but we cannot.'"*

In this case, formal regulation held firm despite hierarchical pressure, illustrating the limits of informal authority in navigating increasingly standardized ethical requirements. Hierarchical confidence here—the assumption that rank would secure compliance—was met with institutional refusal. The network did not fail; rather, formal regulation held firm despite informal pressure. The episode highlights that even those accustomed to exercising authority may misunderstand the limits of informal influence when encountering newer procedural regimes.

Potential implication for academic integrity policies

The findings of our study suggest that academic integrity policies cannot be understood or implemented effectively without taking seriously the role of informal networks in shaping everyday academic practice. In contexts in which interpersonal ties, hierarchical obligations, and network-based exchanges structure access to opportunities, integrity violations are rarely perceived as clear-cut breaches of rules. Instead, they are often embedded within moral economies of loyalty, reciprocity, care, and obligation. Acts that formally qualify as misconduct—such as guest authorship, biased evaluations, or intervention in disciplinary procedures—may be interpreted by participants as expressions of solidarity, mentorship, or institutional responsibility. As a result, integrity policies that rely exclusively on formal compliance mechanisms risk misdiagnosing the problem and underestimating the social forces that sustain informal practices.

One key implication is that academic integrity policies must move beyond individualistic framings of misconduct (Çelik and Razi 2023b). Much of the existing integrity architecture—codes of conduct, ethics committees, plagiarism detection, and sanctions—rests on the assumption that misconduct is the result of individual moral failure. The empirical material presented here demonstrates that questionable practices are often collective, relational, and structurally incentivized. Junior scholars may comply with unethical authorship practices not out of opportunism but out of fear of retaliation or loss of institutional support. Administrators may tolerate integrity breaches to preserve internal cohesion or avoid conflict within solidarity networks. Policies that focus solely on individual responsibility, therefore, risk penalizing the most vulnerable actors while leaving the underlying networked mechanisms intact.

A second implication concerns the limits of transparency-based reforms. Many integrity policies emphasize procedural transparency—open calls, documented evaluations, formalized review processes—as a remedy to favoritism and corruption. While such measures are necessary, the Kazakhstani case illustrates that transparency alone does not neutralize informal influence. Hiring processes, dissertation councils, and grant evaluations may formally comply with regulations while being informally pre-negotiated through networks of patronage or clientelism. Integrity policies should therefore incorporate safeguards that address informal gatekeeping, such as rotating committee membership, external reviewers with genuine independence, and collective accountability mechanisms, rather than reliance on single decision-makers.

Third, integrity policies must grapple with the ambivalence of care-based and solidarity networks. As shown in the findings, these networks can provide crucial emotional, professional, and even humanitarian support, particularly in under-resourced or rapidly changing systems. Attempts to eradicate informal ties wholesale are neither realistic nor desirable. Instead, policy frameworks should distinguish between legitimate relational support (e.g., mentoring, collaborative writing, informal learning) and practices that distort evaluation, authorship, or access to resources. This requires integrity policies that are not merely punitive, but interpretive—capable of recognizing gray zones and providing guidance on how to navigate them ethically.

The analysis also highlights the importance of protecting those who refuse to engage in informal exchanges. Individuals who choose to rely strictly on formal procedures—by declining paid authorship, refusing to activate patronage ties, or resisting unethical requests—often face delays, exclusion, or stalled careers. Integrity policies that do not explicitly address these risks may inadvertently penalize ethical behavior. This suggests the need for institutional protections such as clear whistleblower safeguards, confidential advisory services, and performance evaluation criteria that recognize integrity-preserving choices, even when they slow short-term productivity.

Finally, the findings underscore the need to align integrity policies with broader incentive structures. Many of the network-based practices identified—citation cartels, paid authorship, brokerage services—are responses to intense publication pressure, metric-driven evaluations, and limited institutional support for research capacity building. Integrity policies that focus narrowly on detection and punishment, without addressing the structural drivers of misconduct, are unlikely to be effective. Policy measures should therefore be coupled with realistic workload expectations, transparent reward systems, and institutional investment in research training, language support, and ethical mentoring (Benson et al. 2019).

These implications suggest that effective academic integrity policies must be context-sensitive, relationally informed, and structurally embedded. Rather than assuming a clean separation between formal rules and informal practices, policymakers should recognize their coexistence and interaction. The case of Kazakhstan demonstrates that integrity reforms succeed not when they attempt to eliminate networks, but when they acknowledge their ambivalence and seek to reshape how relational ties intersect with formal governance. This insight is likely to be relevant beyond the Kazakhstani context, particularly in higher education systems undergoing rapid transformation, internationalization, and growing dependence on various types of rankings and performance metrics.

Conclusion and outlook

This study has examined the ambivalent role of informal networks in Kazakhstani academia, demonstrating how they simultaneously enable academic work and undermine principles of research integrity. Drawing on 23 in-depth interviews with senior administrators, the analysis shows that informal networks are not peripheral or exceptional, but constitutive of everyday academic life. Solidarity, domination, redistribution, and market-oriented networks intersect with formal regulations, shaping who gains access to positions, publications, funding, and symbolic recognition. While these networks often compensate for institutional gaps—such as limited research support, bureaucratic inefficiencies, and rapid policy change—they also normalize practices that distort evaluation, obscure responsibility, and weaken trust in academic governance.

Importantly, the findings challenge individualistic understandings of academic misconduct. Questionable practices such as guest authorship, citation manipulation, or intervention in disciplinary processes are rarely experienced as isolated ethical failures. Instead, they are embedded in relational obligations, hierarchical dependencies, and structural incentives that make disengagement costly, particularly for junior scholars. Informal networks thus operate as moral and practical infrastructures through which academic careers are negotiated, often blurring the boundary between legitimate support and integrity violations.

The Kazakhstani case illustrates broader tensions facing higher education systems undergoing rapid internationalization and metric-driven reform. As publication requirements and global rankings intensify, informal networks adapt rather than disappear, giving rise to new market-oriented practices alongside more traditional forms of patronage and solidarity. Integrity policies that focus narrowly on transparency, detection, and sanctions risk overlooking these dynamics and may inadvertently penalize those least able to mobilize informal resources.

Future reforms should therefore move beyond attempts to eradicate informality and instead address its underlying drivers. This includes aligning integrity policies with realistic incentive structures, strengthening institutional support for ethical research practices, and protecting scholars who choose to rely on formal procedures. By foregrounding the relational and contextual dimensions of academic integrity, this study contributes to a more nuanced understanding of how integrity is negotiated in practice—an insight likely to resonate well beyond Kazakhstan, particularly in higher education systems marked by rapid transformation and persistent inequality.

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Author contributions

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Data availability

Anonymized transcripts can be provided upon request.

Declarations

Ethics approval and consent to participate

The study was conducted in accordance with institutional and international ethical standards, including the principles of the Declaration of Helsinki. The research is approved by the University of Calgary Conjoint Faculties Research Ethics Board (REB24-0932).

Human ethics and consent to participate

All participants provided informed consent before participation.

Competing interests

The authors declare no competing interests.

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