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UNIVERSITY TALENT MANAGEMENT ECOSYSTEM FROM CROSS CULTURAL AND INTERNATIONAL PERSPECTIVE

The Fourth Industrial Revolution and the profound restructuring of the global geopolitical landscape are impacting the organizational structure of traditional higher education with unprecedented force. Particularly for large countries like China and Russia, with their distinctly state-led characteristics, university talent management practices bear both the strategic mission of national rise and the pressure of institutional transformation. Therefore, this paper introduces the inclusive and evolutionary concept of "the ecosystem of talent management" from a cross-cultural and international perspective. It aims to transcend traditional organizational boundaries, placing university talent management within a complex ecosystem comprised of diverse species, networked relationships, and cultural symbiosis. Based on the systems of China and Russia, it explores how to move from "closed management" to an "open ecosystem."

Keywords: talent management in higher education, talent management ecosystem, networked relationships, cultural symbiosis, cross-cultural and international perspective on the formation of a talent management ecosystem.

ЭКОСИСТЕМА УПРАВЛЕНИЯ ТАЛАНТАМИ В УНИВЕРСИТЕТАХ С МЕЖКУЛЬТУРНОЙ И МЕЖДУНАРОДНОЙ ТОЧКИ ЗРЕНИЯ

Четвертая промышленная революция и глубокая перестройка глобального геополитического ландшафта оказывают беспрецедентное влияние на организационную структуру традиционного высшего образования. Способ производства знаний сместился от углубленного изучения одной дисциплины к междисциплинарному сотрудничеству, а глобальный поток высококвалифицированных специалистов сталкивается с барьерами, создаваемыми односторонним протекционизмом. В частности, для таких крупных стран, как Китай и Россия, с их ярко выраженным государствен-

ным управлением, практика управления талантами в университетах несет в себе как стратегическую задачу национального подъема, так и давление институциональных преобразований. Поэтому в данной статье представлена инклюзивная и эволюционная концепция «экосистемы управления талантами» с межкультурной и международной точки зрения. Она направлена на преодоление традиционных организационных границ, помещая управление талантами в университетах в сложную экосистему, состоящую из разнообразных видов, сетевых связей и культурного симбиоза. На основе систем Китая и России исследуется, как перейти от «закрытого управления» к «открытой экосистеме», предоставляя новые теоретические идеи и практические пути для управления талантами в глобальном высшем образовании.

Ключевые слова: управление талантами в высшем образовании, экосистема управления талантами, сетевые отношения, культурный симбиоз, межкультурная и международная перспектива формирования экосистемы управления талантами.

Introduction
(Введение)

Against the backdrop of the advancement of the Fourth Industrial Revolution, the reshaping of the global geopolitical landscape, and the overlapping of the VUCA and BANI eras [1], the traditional linear and mechanical talent management model is no longer able to cope with the increasingly complex environmental challenges. Therefore, university talent management is also undergoing a paradigm shift from "System" to "Ecosystem" [2].

In this process, talent is no longer merely a "resource" or "capital" at the university's disposal, but rather an active "species" and "node" in the ecosystem [3]. Traditional university talent management systems often focus on the standardization, efficiency, and control of internal processes. However, in the face of the transformation of knowledge production models, the acceleration of global talent mobility, and the uncertainties brought about by geopolitics, this mechanical paradigm is increasingly showing its limitations.

The construction of a modern university talent management ecosystem aims to break down organizational boundaries and integrate diverse stakeholders, including government, universities, industry, alumni, students, and international academic networks, into a complex, symbiotic, and adaptive system. Particularly from cross-cultural and international perspective, the institutional logics, cultural traditions, and strategic orientations of different countries and regions profoundly shape the structure, function, and evolutionary path of this ecosystem. For exam-

ple, China emphasizes "national management talent", Russia focuses on technological sovereignty under geopolitical resilience, while Western countries pay more attention to market-driven academic autonomy and innovation [4].

The aim of this research is to propose an evolutionary concept of a “talent management ecosystem” and a path to transition from “closed management” to an “open ecosystem” based on new theoretical ideas and practical talent management systems in higher education currently used in China and Russia.

Results of the study
(Результаты исследования)

J. H. Holland's (2012) Complex Adaptive Systems (CAS) theory [5] provides a meta-theoretical framework for talent management ecosystems, emphasizing that the system is composed of adaptive agents, and that emergent phenomena arise between these agents through nonlinear interactions. H. Etzkowitz & L. Leydesdorff's (2000) Triple Helix model [6] specifically points out the interaction and overlapping roles of universities, industry, and government in the innovation ecosystem, providing a classic paradigm for multi-agent collaboration in talent management ecosystems. J. F. Moore's (2006) business ecosystem theory [7] further introduces this concept into organizational management, emphasizing value co-creation and co-evolution. Against the backdrop of Western sanctions and academic isolation, Russian scholars emphasize the endogenous, resilient, and alternative nature of the talent management ecosystem. A. Pazaver (2021) proposed the concept of "resilient universities" [8], stressing that under external shocks, the talent ecosystem must possess the ability to rapidly reorganize, self-repair, and find alternative paths.

The author's version of the concept of "talent management ecosystem" suggests the following:

The talent management ecosystem depends on the diversity and complementarity of its species, breaking down the traditional university teachers' binary structure. The main types are presented in table 1.

Table 1

The main species in talent management ecosystem

Main species	*Specific content*
Core species	Universities (organizational carriers): Transforming from managers into "platform builders" and "rule maintainers" of the ecosystem

End of table. 1 (Окончание табл. 1)

	Teachers/Researchers (core species): These are core species with initiative and creativity, whose vitality determines the productivity of the ecosystem
	Students (future species): They are not only the current targets of talent cultivation, but also participants and contributors to the future ecosystem
Key stakeholders	Government (regulator and guide): Provides policy, funding, and directional guidance
	Industry (demand and application side): Provides practical scenarios, financial support, and talent demand signals to drive industry-education integration
	Alumni (emotional and resource ties): They serve as a bridge connecting the university and society, providing donations, mentor-ship resources, and employment opportunities
	International organizations and peers (external networks): provide assessment criteria, cooperation opportunities, and competitive pressure
Species' roles (triple helix effect)	Universities combine knowledge production, industry incubation, and government service functions; enterprises are deeply involved in the formulation of talent training standards; and the government directly funds scientific research projects, forming an overlapping ecological niche of "you in me, and me in you" [9]

Adaptation to the environment is a selective pressure in the evolution of ecosystems. The talent management ecosystem must possess a high degree of environmental adaptability and resilience. The main elements of the environment are presented in table 2.

Table 2

The core elements of talent management ecosystem in the environmental adaptability and resilience

Core elements	*Specific content*
Physical and institutional environment	Hard environment: The physical spaces of the university, such as research facilities, laboratories, and smart campuses
	Soft environment: National policies and regulations (such as the Data Security Law and the Labor Law), academic norms of universities, and cultural atmosphere
Dynamic adaptation mechanism	Environmental awareness: Establish a mechanism for keen awareness of global technological trends, geopolitical changes, and shifts in industrial demand

End of table. 2 (Окончание табл. 2)

	Adaptive adjustment: Adjusting talent recruitment standards, training programs and resource allocation according to environmental changes (such as the transformation to online teaching during the pandemic) [10]
Resilience and Antifragility	Resilience: Stability in the face of external shocks (such as talent loss and funding cuts)
	Recovery: The ability to recover to the original state or a higher state after an impact
	Evolutionary: Utilizing crises to achieve leaps in the ecosystem and become stronger

The relationships between species in ecosystem are shifting from vertical "control" to horizontal "connection, interaction, and symbiosis," which is essentially networked relationship and symbiotic mechanism. The composition of the key elements of network relationships and the symbiotic mechanism is presented in table 3.

Table 3

The core elements of networked relationship and symbiotic mechanism in talent management ecosystem

Core elements	*Specific content*
Formal and Informal Networks	Formal network: industry-academia-research alliances, discipline collaboration organizations, and international joint laboratories
	Informal networks: academic communities, alumni networks, mentor-disciple networks
Symbiosis	Mutually beneficial: Universities provide talent and technology to enterprises, while enterprises provide funding and learning opportunities to universities
	Symbiotic relationship: one party benefits while the other remains unaffected (such as alumni donations enhance the reputation of the alma mater)
	Competition and coexistence: Competition and cooperation among different universities or disciplines based on niche differentiation
Knowledge flow and energy exchange	Talent flows within the ecosystem, knowledge is transferred between industry, academia, and research, and resources are allocated among multiple parties, forming a virtuous cycle of "talent flow, knowledge flow, and capital flow" [11]

Culture is the intrinsic core of ecosystem, determining the survival status of species and the cohesion of the system. Therefore, cultural inte-

gration and value co-creation are important components of ecosystem, with core elements presented in table 4.

Table 4

The core elements of cultural integration and value co creation in talent management ecosystem

Core elements	*Specific content*
Multicultural integration	Academic culture and administrative culture: Balancing the pursuit of truth and the pursuit of efficiency
	Eastern and western cultures: Reconciling individualism and collectivism
	University and corporate culture: a dialogue and integration between the pursuit of truth and the pursuit of profit
Core values	China emphasizes "moral education" as the value cornerstones of its ecosystem
	Russia emphasizes "national mission" and "patriotism" as the value cornerstones of its ecosystem
	The West emphasizes "academic freedom" and "social accountability"as the value cornerstones of its ecosystem
Cultural atmosphere and trust mechanism	Creating a culture that encourages risk-taking, tolerates failure, and is open and inclusive is the soil for an innovative ecosystem
	Establishing trust-based partnerships can reduce transaction costs and promote deeper collaboration

Ecosystem is not static, but constantly evolve through a mechanism of "mutation-selection-preservation," generating new characteristics (emergence) that cannot be explained by the sum of individual entities. Therefore, the life cycle of ecosystem includes the following elements, presented in table 5.

Table 5

The core elements of life cycle of talent management ecosystem

Core elements	*Specific content*
Life cycle and stage characteristics	Initial stage: Focus on survival and establishing basic rules
	Growth stage: rapid expansion, increased number of entities, and more complex relationship networks
	Mature stage: Stable structure, complete functions, and strong innovation vitality
	Transformation period: Ecosystem faces drastic environmental changes and needs to undergo reforms to achieve either leapfrog development or decline

End of table. 5 (Окончание табл. 5)

Emergence	Ecosystem as a whole exhibit characteristics that transcend individual capabilities, such as "academic schools of thought," "university rankings," and "regional innovation hubs." These are the result of countless nonlinear interactions within the ecosystem
Feedback loops and self-organization	Ecosystems self-regulate through positive and negative feedback loops (such as the "Matthew effect" and "compensation mechanisms"), tending towards a dynamic equilibrium
	When far from equilibrium, ecosystems may upgrade their ordered structure through "fluctuations"

For large countries like China and Russia, with their distinctly state-run systems, talent management practices at universities carry both the strategic objective of national development and the pressure of institutional change. Therefore, the paths to transition from "closed governance" to an "open ecosystem" suggest the following.

First, the essence of a university's talent management ecosystem is a "complex adaptive system." In this system, talent is no longer simply "human resources" or "capital" at the university's discretion, but rather "species" and "nodes" with autonomous consciousness. Only when stakeholders such as the government, universities, industry, alumni, and students break down organizational barriers and form a continuous exchange of materials, energy, and information can an innovative ecosystem with self-healing capabilities and resilience be built. Simply relying on administrative orders or one-dimensional market mechanisms cannot maximize the value of talent.

Second, the healthy operation of the ecosystem depends on a balance between "species diversity" and "relationship networking." Research has found that a healthy ecosystem must abandon singular "elitism" or "egalitarianism" and instead align with strategic importance and scarcity, managing talent in a tiered and categorized manner.

Third, cultural integration and value co-creation are the core differences between an ecosystem and a single talent management system. Research has found that simply relying on high salaries (the Chinese model) or sentimentality (the Russian model) is insufficient to retain talent in the long run [12]. The ecosystem must build an inclusive academic culture that respects both the macro-level guidance of national strategy and the micro-level freedom of academic exploration. Only when talent gains "academic dignity" and a "sense of belonging" within the ecosystem can they achieve a subjective awakening, moving from being "managed" to "co-creating value".

Conclusion
(Заключение)

In conclusion, it is necessary to say that the transformation from a "system" to an "ecosystem" is an inevitable strategic path for China and Russia to cope with global talent competition. Faced with Western technological blockades and talent barriers, China and Russia can no longer merely play the role of "followers." Both sides need to learn from each other and build a talent management ecosystem with Eurasian characteristics. This will not only solve their respective domestic talent dilemmas but also provide a "third paradigm" distinct from the West in the field of global higher education talent management.

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