Influential Article Review - Independent Information Sharing Conduct in Dynamic Virtual Communities: The Viewpoints of Network Effects and Rank Competition

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This paper examines education. We present insights from a highly influential paper. Here are the highlights from this paper: While most literature concerning knowledge sharing examines it as an organizational method for innovation and value creation, this paper considers online knowledge sharing as an individual behavior decision embedded in a virtual community. We attempt to explore which sharing behavior can help individual participants gain a better position in an online community, improving social status, reputation, and other social networking interests. We collected and measured the knowledge sharing activities and discussion from a Chinese online expertise knowledge network in Business Management Consulting. We tested the mediating effects of the sharing behavior of the major members of the online knowledge network on members' status (network centrality) in different time units (days). In a dynamic virtual community, the direct result of knowledge sharing behavior is reflected in the individual status position (the degree of node centrality). At the same time, individual knowledge sharing behavior has an "inertia effect": individual prior status (the degree of node centrality) affects current knowledge sharing behavior, while current knowledge sharing behavior affects current status in the knowledge network, forming an inertial circuit between personal behavior and network status. We expound the theory of individual knowledge sharing in the context of an inter-person dynamic virtual community; we provide action "strategies" for individual knowledge sharing behavior choice, for better understanding the nature of individual knowledge behavior, and we also propose and test the "inertia effect" of knowledge sharing behavior and the knowledge network, and demonstrate the theory of network effects from an individual perspective. For our overseas readers, we then present the insights from this paper in Spanish, French, Portuguese, and German.

Keywords: Dynamic virtual community, Individual knowledge sharing, Network effect, Competition

SUMMARY

- A virtual community based on knowledge sharing and exchange forms a social network for communication, exchange, and sharing of knowledge and information. Though the structure, participation, and actions in a virtual community are dynamic, few scholars of knowledge networks

have highlighted the dynamic nature of knowledge networks. Gong argued that knowledge sharing and interaction between individuals or organizations in the knowledge network were dynamic. Butts thought that any social network The network members are dynamic, and they Individual knowledge sharing behavior in the knowledge network is dynamic. Each network member can dynamically analyze the behavior of other participants at different points in time, and make decisions accordingly including whether to participate in sharing behavior, as well as analyze specific strategic options, such as knowledge sharing frequency or originality.

- In a dynamic virtual community knowledge network, individual knowledge sharing behavior is decided by participants taking into account various personal goals, including establishing and consolidating social status, and increasing social capital in the knowledge community. In an inter-person virtual community, thus, knowledge sharing behaviors of members contribute to improving status to gain advantages. The behavior of the individual in the dynamic knowledge network should be measured in a continuous time dimension. Based on the theory of network effects and competition, we found that frequency and originality are both effective methods of knowledge sharing behavior that help build higher centrality in such dynamic virtual communities.
- We further demonstrate that individual knowledge sharing behavior is related to the dynamic evolution of the individual's position in the dynamic knowledge network.
- This study expands the theory of individual knowledge sharing in the context of inter-person dynamic virtual communities. Knowledge sharing has been regarded as just a method to contribute to organizational innovative performance for a long time . Although some scholars have found that knowledge sharing behavior is embedded in an inter-person social network, e.g. an employee community or a global innovative group , knowledge sharing behavior is examined only as an organizational decision. This study is interested in the individual goals of sharing behavior. By answering a fundamental question of «what kind of sharing action could help build the personal advantage in the community», this study explores the mechanism of knowledge sharing behavior as an individual decision.
- This study provides action «strategies» for individual knowledge sharing behavior choice, for better understanding the nature of individual knowledge behavior. Scholars have considered the behavior of knowledge sharing as a «black box», and have seldom looked into and explored the categories of knowledge sharing behavior. While most literature has focused on the motivations or antecedents of knowledge sharing, this study focuses on examining two characteristics of knowledge sharing behavior, frequency and originality.

HIGHLY INFLUENTIAL ARTICLE

We used the following article as a basis of our evaluation:

Pi, S., & Cai, W. (2017). Individual knowledge sharing behavior in dynamic virtual communities: The perspectives of network effects and status competition. Frontiers of Business Research in China, 11(1), 1–17.

This is the link to the publisher's website:
https://fbr.springeropen.com/articles/10.1186/s11782-017-0021-7

INTRODUCTION

Knowledge sharing was initiated as a method of knowledge management (Kang, et al., 2017) and organizational learning (Almeida and Soares, 2014), especially in the context of innovative process management (Zhou and Li, 2012), or supply chain management (Cai, et al., 2013). Most literature on knowledge sharing aims to examine whether knowledge sharing can improve organizational performance in innovation and learning and if so, how (Ritala, et al., 2015). While the development of social network

technology (Jiang, 2015) and the emergence of the sharing economy (Wang et al., 2011) in recent years might make knowledge sharing a common and crucial method for individuals in individual learning, social networking, and even career improvement (Chen and Hung, 2010). Especially in online knowledge networks, knowledge sharing is mainly for catching "eyeballs" and turning it into actual economic and social benefits (Qiu and Wang, 2011). Individual knowledge sharing actions are not just for knowledge learning, but also for inter-personal competition, cooperation, self-reputation, or even free-rider experiences (Liao et al., 2013). Therefore revealing the mechanism of individual knowledge sharing behavior is not only important for knowledge management and organizational learning in a sharing economy but also helps to understand and establish knowledge sharing networks while encouraging participants to share. Moreover, most scholars examine knowledge sharing in a static context or knowledge network (Saifi et al., 2016; Reinholt and Foss, 2011), with only a few building dynamic models of knowledge sharing from the perspective of network effects (Gong, 2011; Butts, 2011).

Individual knowledge sharing in the sharing economy has turned out to be more likely an individual behavior, rather than just an organizational decision. Also, the decision to engage in knowledge sharing behavior is operating under the dynamic structure of the entire knowledge network. This study aims to explore the mechanism between the character of individual online knowledge sharing behavior and individual network status, to help individual participants gain more social and economic benefits by choosing effective sharing behavior. According to the theory of network effects, one can have more network connections with fewer costs when one gains critical mass (Economides and Himmelberg, 1995). Though network effect theory indicates that the scale of participants will help the entire network gain alternative value and improve performance (Arroyo, 2007), individual choice and decisions taken under the network effect are still a blind spot. More connections bring more social capital and other benefits for the individual, and encourage more sharing behavior from such participants. Therefore if one received the most attention and response in the knowledge network in the past, it is easy to predict that he/she will deploy similar sharing behaviors in the future.

One major task of this paper is to test whether the "inertia effects" mentioned above, which can make individual knowledge sharing behavior enhance online status, exist, given that the structure of and participants in online knowledge networks are dynamic. Also, this paper attempts to explore the character of sharing behavior to help individual participants to be more effective when sharing knowledge.

In this study, we measured an online expertise knowledge community, a QQ group, capturing and calculating its dynamics each day. Then we tested the mediating effects of the sharing behavior of its major members on the members' status (network centrality) in different time zones (days). The major contribution of our study focuses on knowledge sharing. This study supplies theoretical indicators for knowledge sharing under cross-hierarchy, individual sharing behavior. Secondly, this study helps to explore whether there is an "inertia effect" of knowledge sharing in a dynamic online knowledge network, and whether it impacts dynamic behavior decisions on knowledge sharing. Thirdly, our study helps to understand the network effect from individual perspectives, by revealing that sharing behavior which attracts responses will help network status growth, and collectively the growth of the entire network.

In the next section, we propose hypotheses based on literature reviews of both network effects theory and knowledge sharing. The online knowledge sharing sample choice and measurement and variable designation are reported in Research design: Network analysis of an online community from the Chinese consulting industry section. With empirical results reported in Analysis result section, we have our discussion and final conclusion in Discussion and conclusion section.

CONCLUSION

In the dynamic virtual community, the direct result of knowledge sharing behavior is reflected in the individual position (the degree of node centrality). Moreover, the individual knowledge sharing behavior has an "inertia effect": individual previous status (the degree of node centrality) affects current knowledge sharing behavior, while current knowledge sharing behavior affects the current status in the knowledge network, forming an inertial circuit between personal behavior and network status.

This study has the following theoretical contributions:

1) This study expands the theory of individual knowledge sharing in the context of inter-person dynamic virtual communities. Knowledge sharing has been regarded as just a method to contribute to organizational innovative performance for a long time (Carmeli et al., 2013). Although some scholars have found that knowledge sharing behavior is embedded in an inter-person social network, e.g. an employee community (Yong, et al., 2013) or a global innovative group (Olaisen and Revang, 2017), knowledge sharing behavior is examined only as an organizational decision. This study is interested in the individual goals of sharing behavior. By answering a fundamental question of "what kind of sharing action could help build the personal advantage in the community", this study explores the mechanism of knowledge sharing behavior as an individual decision.
2) This study provides action "strategies" for individual knowledge sharing behavior choice, for better understanding the nature of individual knowledge behavior. Scholars have considered the behavior of knowledge sharing as a "black box", and have seldom looked into and explored the categories of knowledge sharing behavior. While most literature has focused on the motivations or antecedents of knowledge sharing, this study focuses on examining two characteristics of knowledge sharing behavior, frequency and originality. Moreover, this study considers frequency and originality as two "strategies" of knowledge sharing for building the personal advantage in a virtual community and looks at the inter-relationship with network position in a dynamic virtual community.
3) This study proposes and tests the "inertia effect" of knowledge sharing behavior and the knowledge network, and the theory of network effects from an individual perspective. Network effect theory holds that organizations or individuals in the center will continue to acquire more network effects with the evolution of network structure. However, it cannot be accurately predicted who may continually hold the center position in the network or whether the network externalities will be eventually regarded as a resource or constraints to achieve Pareto Optimality (Kumar and Sastry, 2013) for all participants. In a dynamic virtual community, the "inertia effect" of behavior resulting from individual analysis demonstrates the network effect theory at the micro level of the individual and makes it possible to describe the evolution of the network effect from the individual behavior level. Based on the "inertia effect" of individual sharing behavior, people can track and even predict the evolution of a knowledge community through this mathematical model.

This paper has the following limitations:

1. Due to the shortage of time, the sample selection in this paper only tested the data generated by a professional knowledge community for one a month and lacks validation from multiple data sets. The resulting sample data is not able to compare different types of knowledge communities and networks, and does not reflect the differences between sectors.
2. This paper focuses on online individual behavior, and does not consider the effects of knowledge sharing motivation and behavioral decision-making on individual behavior in the real world.
3. In this paper, we tested the "inertia effect" between knowledge sharing and network position dynamics only by the originality and frequency of sharing behavior. Further research on other categories of knowledge sharing behavior is needed.

APPENDIX

FIGURE 1
RESEARCH MODEL

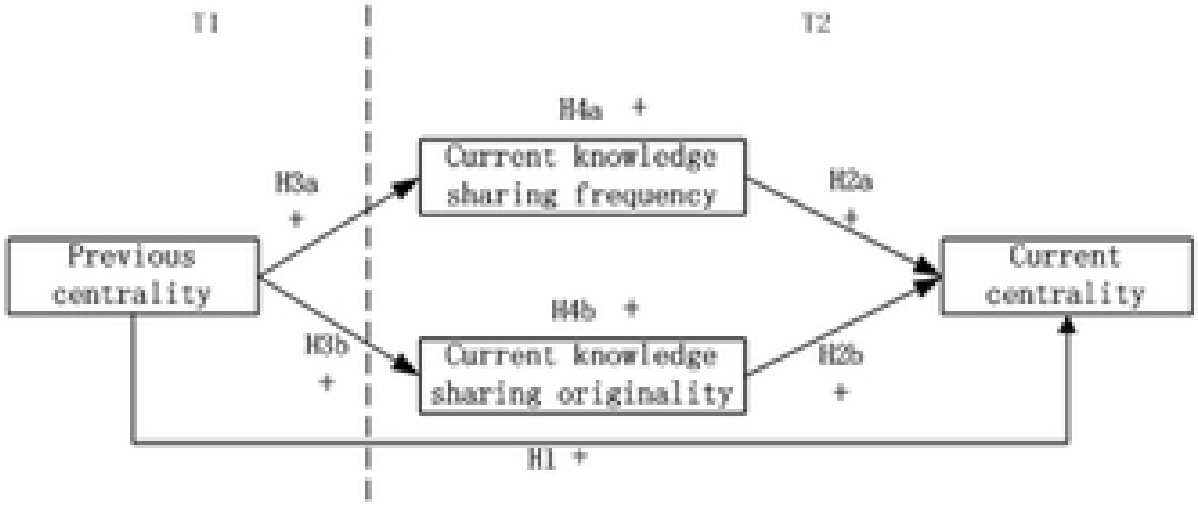

FIGURE 2
THE KNOWLEDGE NETWORK OF CMKT IN THE ENTIRE MONTH OF MARCH

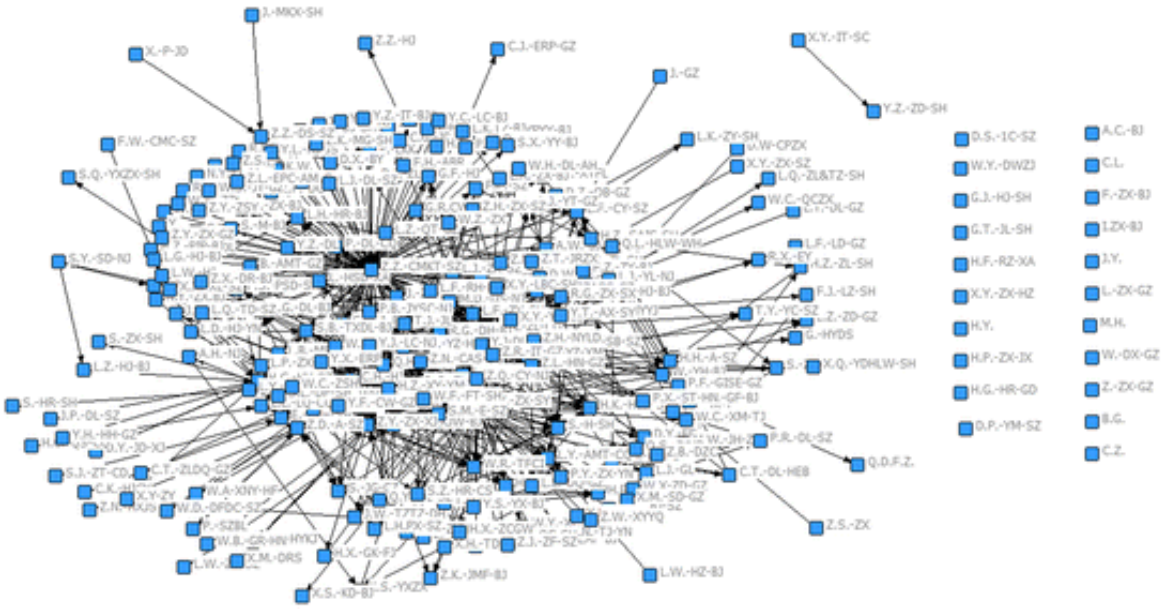

FIGURE 3
THE KNOWLEDGE NETWORK OF CMKT IN EXAMPLE DAYS

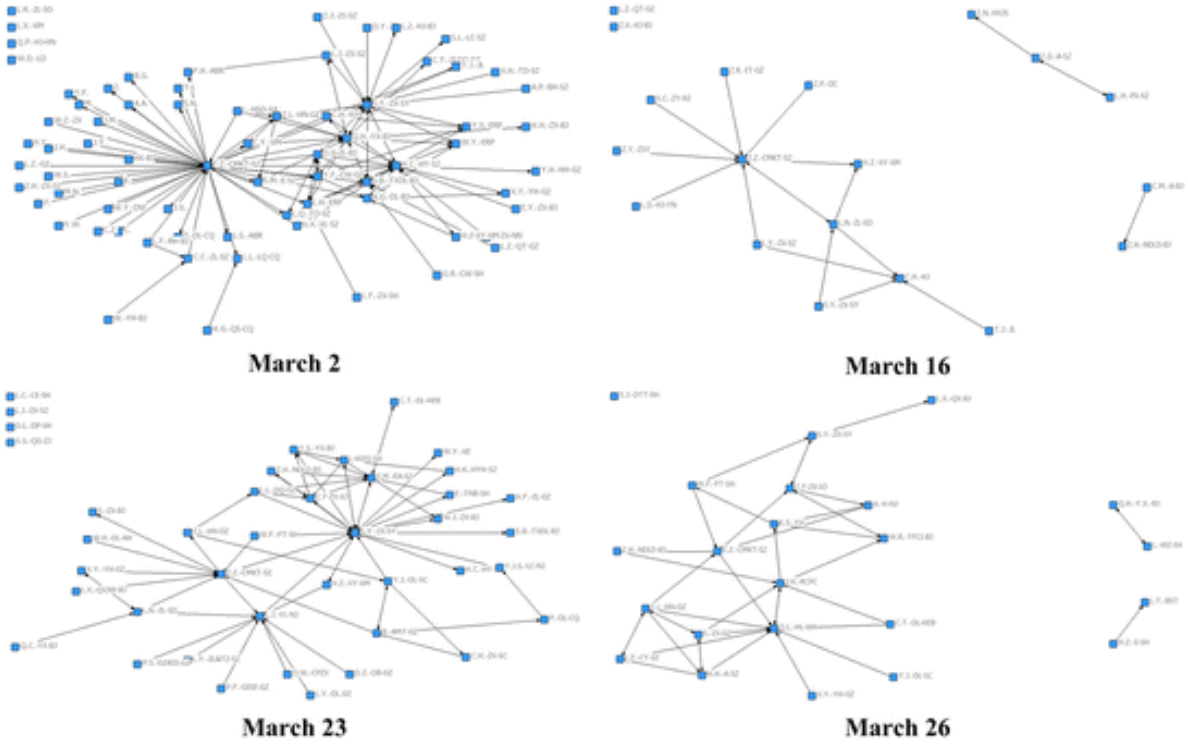

TABLE 1
DESCRIPTIVE STATISTICS AND CORRELATION ANALYSIS

	Mean	**standard deviations**	**1**	**2**	**3**	**4**	**5**
1 frequency	2.004895E1	33.5641762	1				
2 originality	1.807699E1	33.0340739	.998**	1			
3pre- centrality	4.1748	5.12425	.189*	.180*	1		
4 centrality	4.5944	5.34742	.754**	.733**	.289**	1	
5 time	7.35	2.37253	.189	.325*	.102	.225*	1
6 Evalu.	−7.9501285E−16	1.00000000	.228**	.179*	.092	.345**	.189*

*:p < 0.5;**:p < 0.01;***: p < 0.001

TABLE 2
RESULTS OF REGRESSION ANALYSIS

	Model 1 centrality	**Model 2 centrality**	**Model 3 centrality**	**Model 4 frequency**	**Model 5 originality**	**Model 6 centrality**	**Model 7 centrality**
Constant	(6.299) ***	(2.521) **	(6.162) ***	(4.268)***	(3.845) ***	(4.376) ***	(4.821) ***
Time	.217* (.859)	.272* (.977)	.261* (1.105)	.192 (.633)	.337 (1.021)	.365 (3.259)	.271 (2.797)
Evalu.	.234 (1.014)	.243* (1.232)	.252 (1.012)	.208 (0.976)	.152 (0.838)	.267 (1.254)	.199 (1.843)
Pre-centrality	.479*** (4.516)			.301** (2.724)	.281* (2.534)	.265*** (3.609)	.286*** (3.779)
Frequency		.753*** (13.555)				.709*** (12.955)	
Originality			.732*** (12.722)				.688*** (12.225)
R^2 adj.	.116	.642	.530	.038	.031	.597	.571
F value	10.299***	86.021***	81.116***	3.795*	3.309*	70.994***	63.967***

*:p < 0.5;**:p < 0.01;***:p < 0.001
The t-value test in bracket

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TRANSLATED VERSION: SPANISH

Below is a rough translation of the insights presented above. This was done to give a general understanding of the ideas presented in the paper. Please excuse any grammatical mistakes and do not hold the original authors responsible for these mistakes.

VERSION TRADUCIDA: ESPAÑOL

A continuación se muestra una traducción aproximada de las ideas presentadas anteriormente. Esto se hizo para dar una comprensión general de las ideas presentadas en el documento. Por favor, disculpe cualquier error gramatical y no responsabilite a los autores originales de estos errores.

INTRODUCCIÓN

El intercambio de conocimientos se inició como un método de gestión del conocimiento (Kang, et al., 2017) y aprendizaje organizacional (Almeida y Soares, 2014), especialmente en el contexto de la gestión innovadora de procesos (Zhou y Li, 2012), o la gestión de la cadena de suministro (Cai, et al., 2013). La mayoría de la literatura sobre el intercambio de conocimientos tiene como objetivo examinar si el intercambio de conocimientos puede mejorar el rendimiento organizacional en innovación y aprendizaje y, en caso afirmativo, cómo (Ritala, et al., 2015). Si bien el desarrollo de la tecnología de redes sociales (Jiang, 2015) y el surgimiento de la economía colaborativa (Wang et al., 2011) en los últimos años podrían hacer que el intercambio de conocimientos sea un método común y crucial para las personas en el aprendizaje individual, las redes sociales e incluso la mejora profesional (Chen y Hung, 2010). Especialmente en las redes de conocimiento en línea, el intercambio de conocimientos es principalmente para atrapar "eyeballs" y convertirlos en beneficios económicos y sociales reales (Qiu y Wang, 2011). Las acciones individuales de intercambio de conocimientos no son sólo para el aprendizaje del conocimiento, sino también para la competencia inter-personal, la cooperación, la auto-reputación o incluso las experiencias de free-rider (Liao et al., 2013). Por lo tanto, revelar el mecanismo del comportamiento individual de intercambio de conocimientos no sólo es importante para la gestión del conocimiento y el aprendizaje organizacional en una economía compartida, sino que también ayuda a comprender y establecer redes de intercambio de conocimientos, al tiempo que alienta a los participantes a compartir. Además, la mayoría de los eruditos examinan el intercambio de conocimientos en un contexto estático o red de conocimiento (Saifi et al., 2016; Reinholt y Foss, 2011), con sólo unos pocos modelos dinámicos de intercambio de conocimientos desde la perspectiva de los efectos de la red (Gong, 2011; Butts, 2011).

El intercambio de conocimientos individuales en la economía compartida ha resultado ser más probable que sea un comportamiento individual, en lugar de simplemente una decisión organizativa. Además, la decisión de participar en el comportamiento de intercambio de conocimientos está operando bajo la estructura dinámica de toda la red de conocimiento. Este estudio tiene como objetivo explorar el mecanismo entre el carácter del comportamiento individual de intercambio de conocimientos en línea y el estado de la red individual, para ayudar a los participantes individuales a obtener más beneficios sociales y económicos al elegir un comportamiento de intercambio eficaz. Según la teoría de los efectos de la red, se pueden tener más conexiones de red con menos costos cuando se gana masa crítica (Economides e Himmelberg, 1995). Aunque la teoría del efecto de red indica que la escala de los participantes ayudará a toda la red a obtener valor alternativo y mejorar el rendimiento (Arroyo, 2007), la elección individual y las decisiones tomadas bajo el efecto de la red siguen siendo un punto ciego. Más conexiones aportan más capital social y otros beneficios para el individuo, y fomentan un mayor comportamiento de compartir de dichos participantes. Por lo tanto, si uno recibió la mayor atención y respuesta en la red de conocimiento en el pasado, es fácil predecir que implementará comportamientos de intercambio similares en el futuro.

Una tarea importante de este documento es probar si existen los "efectos de inercia" mencionados anteriormente, que pueden hacer que el comportamiento de intercambio de conocimientos individuales mejore el estado en línea, dado que la estructura y los participantes en las redes de conocimiento en línea son dinámicos. Además, este artículo intenta explorar el carácter de compartir el comportamiento para ayudar a los participantes individuales a ser más eficaces al compartir conocimientos.

En este estudio, medimos una comunidad de conocimiento de experiencia en línea, un grupo QQ, capturando y calculando su dinámica cada día. Luego probamos los efectos mediadores del comportamiento de uso compartido de sus miembros principales en el estado de los miembros (centralidad de la red) en diferentes zonas horarias (días). La mayor contribución de nuestro estudio se centra en el intercambio de conocimientos. Este estudio proporciona indicadores teóricos para el intercambio de conocimientos bajo el comportamiento de intercambio individual y entre jerarquías. En segundo lugar, este estudio ayuda a explorar si existe un "efecto inercial" del intercambio de conocimientos en una red dinámica de conocimientos en línea, y si afecta a las decisiones de comportamiento dinámico en el intercambio de conocimientos. En tercer lugar, nuestro estudio ayuda a entender el efecto de la red desde perspectivas individuales, al revelar que compartir el comportamiento que atrae las respuestas ayudará al crecimiento del estado de la red, y colectivamente el crecimiento de toda la red.

En la siguiente sección, proponemos hipótesis basadas en revisiones bibliográficas tanto de la teoría de los efectos de la red como del intercambio de conocimientos. La elección de muestra de intercambio de conocimientos en línea y la medición y designación variable se informan en Diseño de investigación: Análisis de red de una comunidad en línea de la sección de la industria de consultoría china. Con los resultados empíricos reportados en la sección De resultados del análisis, tenemos nuestra discusión y conclusión final en la sección Discusión y conclusión.

CONCLUSIÓN

En la comunidad virtual dinámica, el resultado directo del comportamiento de intercambio de conocimientos se refleja en la posición individual (el grado de centralidad del nodo). Además, el comportamiento de intercambio de conocimientos individual tiene un "efecto de inercia": el estado anterior individual (el grado de centralidad del nodo) afecta al comportamiento actual de intercambio de conocimientos, mientras que el comportamiento actual de intercambio de conocimientos afecta al estado actual de la red de conocimiento, formando un circuito inercial entre el comportamiento personal y el estado de la red.

Este estudio tiene las siguientes contribuciones teóricas:

1) Este estudio amplía la teoría del intercambio de conocimientos individuales en el contexto de las comunidades virtuales dinámicas inter-persona. El intercambio de conocimientos se ha considerado sólo como un método para contribuir al desempeño innovador de la organización durante mucho tiempo (Carmeli et al., 2013). Aunque algunos académicos han encontrado que el comportamiento de compartir conocimientos está incrustado en una red social inter personitaria, por ejemplo, una comunidad de empleados (Yong, et al., 2013) o un grupo innovador global (Olaisen y Revang, 2017), el comportamiento de compartir conocimientos se examina sólo como una decisión organizativa. Este estudio está interesado en los objetivos individuales de compartir el comportamiento. Al responder a una pregunta fundamental de "qué tipo de acción de compartir podría ayudar a construir la ventaja personal en la comunidad", este estudio explora el mecanismo de compartir el comportamiento de compartir conocimientos como una decisión individual.
2) Este estudio proporciona "estrategias" de acción para la elección de comportamiento de intercambio de conocimiento individual, para comprender mejor la naturaleza del comportamiento del conocimiento individual. Los académicos han considerado el comportamiento del intercambio de conocimientos como una "caja negra", y rara vez han investigado y explorado las categorías de comportamiento de intercambio de conocimientos. Si bien la mayoría de la literatura se ha centrado en las motivaciones o antecedentes del

intercambio de conocimientos, este estudio se centra en examinar dos características del comportamiento de intercambio de conocimientos, la frecuencia y la originalidad. Además, este estudio considera la frecuencia y la originalidad como dos "estrategias" de intercambio de conocimientos para construir la ventaja personal en una comunidad virtual y analiza la interrelación con la posición de red en una comunidad virtual dinámica.

3) Este estudio propone y pone a prueba el "efecto inercia" del comportamiento de intercambio de conocimientos y la red de conocimiento, y la teoría de los efectos de la red desde una perspectiva individual. La teoría del efecto de red sostiene que las organizaciones o individuos en el centro continuarán adquiriendo más efectos de red con la evolución de la estructura de la red. Sin embargo, no se puede predecir con precisión quién puede mantener continuamente la posición central en la red o si las externalidades de la red serán finalmente consideradas como un recurso o restricciones para lograr la Optimización de Pareto (Kumar y Sastry, 2013) para todos los participantes. En una comunidad virtual dinámica, el "efecto de inercia" del comportamiento resultante del análisis individual demuestra la teoría del efecto de red a nivel micro del individuo y permite describir la evolución del efecto de red desde el nivel de comportamiento individual. Basándose en el "efecto de inercia" del comportamiento de compartir individualmente, las personas pueden rastrear e incluso predecir la evolución de una comunidad de conocimiento a través de este modelo matemático.

Este documento tiene las siguientes limitaciones:

1. Debido a la escasez de tiempo, la selección de muestras en este documento solo probó los datos generados por una comunidad de conocimiento profesional durante uno al mes y carece de validación de varios conjuntos de datos. Los datos de muestra resultantes no pueden comparar diferentes tipos de comunidades y redes de conocimiento, y no reflejan las diferencias entre sectores.
2. Este artículo se centra en el comportamiento individual en línea, y no considera los efectos de la motivación de compartir conocimientos y la toma de decisiones conductuales en el comportamiento individual en el mundo real.
3. En este artículo, probamos el "efecto de inercia" entre el intercambio de conocimientos y la dinámica de posición de la red solo por la originalidad y la frecuencia del comportamiento de compartir. Se necesitan más investigaciones sobre otras categorías de comportamiento de intercambio de conocimientos.

TRANSLATED VERSION: FRENCH

Below is a rough translation of the insights presented above. This was done to give a general understanding of the ideas presented in the paper. Please excuse any grammatical mistakes and do not hold the original authors responsible for these mistakes.

VERSION TRADUITE: FRANÇAIS

Voici une traduction approximative des idées présentées ci-dessus. Cela a été fait pour donner une compréhension générale des idées présentées dans le document. Veuillez excuser toutes les erreurs grammaticales et ne pas tenir les auteurs originaux responsables de ces erreurs.

INTRODUCTION

Le partage des connaissances a été initié comme méthode de gestion des connaissances (Kang, et coll., 2017) et d'apprentissage organisationnel (Almeida et Soares, 2014), en particulier dans le contexte de la gestion novatrice des processus (Zhou et Li, 2012) ou de la gestion de la chaîne d'approvisionnement (Cai, et coll., 2013). La plupart des documents sur le partage des connaissances visent à examiner si le partage des connaissances peut améliorer la performance organisationnelle en matière d'innovation et

d'apprentissage et, le cas dernier, comment (Ritala, et coll., 2015). Alors que le développement de la technologie des réseaux sociaux (Jiang, 2015) et l'émergence de l'économie du partage (Wang et coll., 2011) ces dernières années pourraient faire du partage des connaissances une méthode commune et cruciale pour les individus dans l'apprentissage individuel, les réseaux sociaux et même l'amélioration de carrière (Chen et Hung, 2010). En particulier dans les réseaux de connaissances en ligne, le partage des connaissances est principalement pour attirer l'attention et en faire des avantages économiques et sociaux réels (Qiu et Wang, 2011). Les actions individuelles de partage des connaissances ne sont pas seulement pour l'apprentissage des connaissances, mais aussi pour la compétition inter-personnelle, la coopération, l'auto-réputation, ou même les expériences de free-rider (Liao et coll., 2013). Par conséquent, révéler le mécanisme du comportement individuel de partage des connaissances est non seulement important pour la gestion des connaissances et l'apprentissage organisationnel dans une économie de partage, mais contribue également à comprendre et à établir des réseaux de partage des connaissances tout en encourageant les participants à partager. De plus, la plupart des chercheurs examinent le partage des connaissances dans un contexte statique ou un réseau de connaissances (Saifi et coll., 2016; Reinholt et Foss, 2011), avec seulement quelques modèles dynamiques de partage des connaissances du point de vue des effets de réseau (Gong, 2011; Butts, 2011).

Le partage individuel des connaissances dans l'économie du partage s'est avéré être plus probablement un comportement individuel, plutôt qu'une décision organisationnelle. En outre, la décision de s'engager dans un comportement de partage des connaissances fonctionne sous la structure dynamique de l'ensemble du réseau de connaissances. Cette étude vise à explorer le mécanisme entre le caractère du comportement individuel de partage des connaissances en ligne et le statut de réseau individuel, afin d'aider les participants individuels à obtenir plus d'avantages sociaux et économiques en choisissant un comportement de partage efficace. Selon la théorie des effets de réseau, on peut avoir plus de connexions réseau avec moins de coûts quand on gagne la masse critique (Economides et Himmelberg, 1995). Bien que la théorie de l'effet réseau indique que l'échelle des participants aidera l'ensemble du réseau à acquérir une valeur alternative et à améliorer les performances (Arroyo, 2007), le choix individuel et les décisions prises sous l'effet réseau sont toujours un angle mort. Plus de connexions apportent plus de capital social et d'autres avantages pour l'individu, et encouragent plus de comportement de partage de ces participants. Par conséquent, si l'on a reçu le plus d'attention et de réponse dans le réseau de connaissances dans le passé, il est facile de prédire qu'il / elle va déployer des comportements de partage similaires à l'avenir.

L'une des principales tâches de cet article est de vérifier si les « effets d'inertie » mentionnés ci-dessus, qui peuvent rendre le comportement individuel de partage des connaissances améliorer le statut en ligne, existent, étant donné que la structure et les participants aux réseaux de connaissances en ligne sont dynamiques. En outre, cet article tente d'explorer le caractère du comportement de partage pour aider les participants individuels à être plus efficaces lors du partage des connaissances.

Dans cette étude, nous avons mesuré une communauté de connaissances en ligne spécialisée, un groupe QQ, capturant et calculant sa dynamique chaque jour. Ensuite, nous avons testé les effets de médiation du comportement de partage de ses principaux membres sur le statut des membres (centralité du réseau) dans différents fuseaux horaires (jours). La contribution majeure de notre étude est axée sur le partage des connaissances. Cette étude fournit des indicateurs théoriques pour le partage des connaissances sous la hiérarchie croisée, le comportement de partage individuel. Deuxièmement, cette étude aide à déterminer s'il existe un « effet d'inertie » du partage des connaissances dans un réseau dynamique de connaissances en ligne et s'il a une incidence sur les décisions dynamiques en matière de comportement sur le partage des connaissances. Troisièmement, notre étude aide à comprendre l'effet réseau à partir de perspectives individuelles, en révélant que le partage des comportements qui attire les réponses aidera à la croissance du statut réseau, et collectivement la croissance de l'ensemble du réseau.

Dans la section suivante, nous proposons des hypothèses basées sur des revues documentaires de la théorie des effets du réseau et du partage des connaissances. Le partage des connaissances en ligne choix de l'échantillon et la mesure et la désignation variable sont signalés dans la conception de la recherche: Analyse du réseau d'une communauté en ligne de la section de l'industrie chinoise de consultation. Avec

les résultats empiriques rapportés dans la section Résultats de l'analyse, nous avons notre discussion et notre conclusion finale dans la section Discussion et conclusion.

CONCLUSION

Dans la communauté virtuelle dynamique, le résultat direct du comportement de partage des connaissances se reflète dans la position individuelle (le degré de centralité des nœuds). En outre, le comportement individuel de partage des connaissances a un « effet d'inertie » : le statut antérieur individuel (le degré de centralité des nœuds) affecte le comportement actuel de partage des connaissances, tandis que le comportement actuel de partage des connaissances affecte l'état actuel du réseau de connaissances, formant un circuit inertiel entre le comportement personnel et l'état du réseau.

Cette étude a les contributions théoriques suivantes :

1) Cette étude élargit la théorie du partage individuel des connaissances dans le contexte des communautés virtuelles dynamiques entre personnes. Le partage des connaissances est considéré depuis longtemps comme une méthode pour contribuer à la performance organisationnelle innovatrice (Carmeli et coll., 2013). Bien que certains chercheurs aient constaté que le comportement de partage des connaissances est intégré dans un réseau social inter-personnes, par exemple une communauté d'employés (Yong, et coll., 2013) ou un groupe novateur mondial (Olaisen et Revang, 2017), le comportement de partage des connaissances n'est examiné que comme une décision organisationnelle. Cette étude s'intéresse aux objectifs individuels de partage des comportements. En répondant à une question fondamentale sur « quel type d'action de partage pourrait aider à renforcer l'avantage personnel dans la communauté », cette étude explore le mécanisme du partage des connaissances en tant que décision individuelle.
2) Cette étude fournit des « stratégies » d'action pour le choix individuel de comportement de partage de connaissances, pour mieux comprendre la nature du comportement individuel de connaissance. Les chercheurs ont considéré le comportement du partage des connaissances comme une « boîte noire » et ont rarement examiné et exploré les catégories de comportements de partage des connaissances. Bien que la plupart de la littérature se soit concentrée sur les motivations ou les antécédents du partage des connaissances, cette étude se concentre sur l'examen de deux caractéristiques du comportement, de la fréquence et de l'originalité du partage des connaissances. De plus, cette étude considère la fréquence et l'originalité comme deux « stratégies » de partage des connaissances pour renforcer l'avantage personnel dans une communauté virtuelle et examine l'interconnexalité avec la position du réseau dans une communauté virtuelle dynamique.
3) Cette étude propose et teste « l'effet d'inertie » du comportement de partage des connaissances et du réseau de connaissances, ainsi que la théorie des effets de réseau d'un point de vue individuel. La théorie de l'effet réseau soutient que les organisations ou les individus dans le centre continueront d'acquérir plus d'effets réseau avec l'évolution de la structure du réseau. Toutefois, on ne peut pas prédire avec précision qui peut continuellement occuper la position centrale dans le réseau ou si les externalités du réseau seront éventuellement considérées comme une ressource ou des contraintes pour atteindre Pareto Optimality (Kumar et Sastry, 2013) pour tous les participants. Dans une communauté virtuelle dynamique, « l'effet d'inertie » du comportement résultant de l'analyse individuelle démontre la théorie de l'effet réseau au micro-niveau de l'individu et permet de décrire l'évolution de l'effet réseau à partir du niveau de comportement individuel. Sur la base de « l'effet d'inertie » du comportement de partage individuel, les gens peuvent suivre et même prédire l'évolution d'une communauté de connaissances à travers ce modèle mathématique.

Le présent document a les limites suivantes :

1. En raison du manque de temps, la sélection de l'échantillon dans cet article n'a testé les données générées par une communauté de connaissances professionnelles que pendant un par mois et

n’a pas été validée à partir de plusieurs ensembles de données. Les données de l’échantillon qui en résultent ne sont pas en mesure de comparer différents types de communautés et de réseaux de connaissances et ne reflètent pas les différences entre les secteurs.

2. Cet article se concentre sur le comportement individuel en ligne, et ne tient pas compte des effets de la motivation de partage des connaissances et de la prise de décision comportementale sur le comportement individuel dans le monde réel.
3. Dans cet article, nous avons testé « l’effet d’inertie » entre le partage des connaissances et la dynamique de position réseau uniquement par l’originalité et la fréquence du comportement de partage. D’autres recherches sur d’autres catégories de comportement de partage des connaissances sont nécessaires.

TRANSLATED VERSION: GERMAN

Below is a rough translation of the insights presented above. This was done to give a general understanding of the ideas presented in the paper. Please excuse any grammatical mistakes and do not hold the original authors responsible for these mistakes.

ÜBERSETZTE VERSION: DEUTSCH

Hier ist eine ungefähre Übersetzung der oben vorgestellten Ideen. Dies wurde getan, um ein allgemeines Verständnis der in dem Dokument vorgestellten Ideen zu vermitteln. Bitte entschuldigen Sie alle grammatikalischen Fehler und machen Sie die ursprünglichen Autoren nicht für diese Fehler verantwortlich.

EINLEITUNG

Der Wissensaustausch wurde als Methode des Wissensmanagements (Kang, et al., 2017) und des organisatorischen Lernens (Almeida und Soares, 2014) eingeleitet, insbesondere im Kontext des innovativen Prozessmanagements (Zhou und Li, 2012) oder des Supply Chain Managements (Cai, et al., 2013). Die meisten Literaturen zum Wissensaustausch sollen untersuchen, ob der Wissensaustausch die organisatorische Leistung in Innovation und Lernen verbessern kann und wenn ja, wie (Ritala, et al., 2015). Während die Entwicklung der Social-Network-Technologie (Jiang, 2015) und das Aufkommen der Sharing Economy (Wang et al., 2011) in den letzten Jahren den Wissensaustausch zu einer gemeinsamen und entscheidenden Methode für Einzelpersonen in der individuellen Lern-, sozialen Vernetzung und sogar zur Karriereverbesserung machen könnten (Chen und Hung, 2010). Gerade in Online-Wissensnetzwerken dient der Wissensaustausch vor allem dazu, "Eyeballs" zu fangen und in tatsächliche wirtschaftliche und soziale Vorteile umzuwandeln (Qiu und Wang, 2011). Individuelle Wissensaustauschmaßnahmen sind nicht nur für Wissenslernen, sondern auch für den zwischenmenschlichen Wettbewerb, Die Zusammenarbeit, die Selbstreputation oder auch tritterfahrerische Erfahrungen (Liao et al., 2013). Daher ist die Aufdeckung des Mechanismus des individuellen Wissensaustauschverhaltens nicht nur für das Wissensmanagement und das organisatorische Lernen in einer Sharing Economy wichtig, sondern trägt auch dazu bei, Netzwerke zum Wissensaustausch zu verstehen und aufzubauen, während die Teilnehmer zum Teilen ermutigt werden. Darüber hinaus untersuchen die meisten Wissenschaftler den Wissensaustausch in einem statischen Kontext oder Wissensnetzwerk (Saifi et al., 2016; Reinholt und Foss, 2011), mit nur wenigen dynamischen Modellen des Wissensaustauschs aus der Perspektive von Netzwerkeffekten (Gong, 2011; Butts, 2011).

Der individuelle Wissensaustausch in der Sharing Economy hat sich als eher ein individuelles Verhalten und nicht nur als organisatorische Entscheidung erwiesen. Außerdem erfolgt die Entscheidung für das Verhalten des Wissensaustauschs unter der dynamischen Struktur des gesamten Wissensnetzwerks. Diese Studie zielt darauf ab, den Mechanismus zwischen dem Charakter des individuellen Online-Wissensaustauschverhaltens und dem Status des individuellen Netzwerks zu untersuchen, um einzelnen Teilnehmern zu helfen, mehr soziale und wirtschaftliche Vorteile zu erzielen, indem sie effektives Sharing-

Verhalten wählen. Nach der Theorie der Netzwerkeffekte kann man mehr Netzwerkverbindungen mit weniger Kosten haben, wenn man kritische Masse gewinnt (Economides und Himmelberg, 1995). Obwohl die Theorie des Netzwerkeffekts darauf hindeutet, dass die Skala der Teilnehmer dem gesamten Netzwerk helfen wird, alternativen Wert zu gewinnen und die Leistung zu verbessern (Arroyo, 2007), sind individuelle Auswahl und Entscheidungen, die im Rahmen des Netzwerkeffekts getroffen werden, immer noch ein blinder Fleck. Mehr Verbindungen bringen mehr soziales Kapital und andere Vorteile für den Einzelnen und fördern mehr Gemeinsames verhalten sich von solchen Teilnehmern. Wenn man also in der Vergangenheit die meiste Aufmerksamkeit und Reaktion im Wissensnetzwerk erhalten hat, ist es leicht vorherzusagen, dass er/sie in Zukunft ähnliche Sharing-Verhalten bereitstellen wird.

Eine wichtige Aufgabe dieses Papiers ist es zu testen, ob die oben genannten "Trägheitseffekte", die das individuelle Wissensaustauschverhalten dazu bringen können, den Online-Status zu verbessern, existieren, da die Struktur und die Teilnehmer an Online-Wissensnetzwerken dynamisch sind. Außerdem wird in diesem Dokument versucht, den Charakter des Teilens von Verhalten zu untersuchen, um einzelnen Teilnehmern zu helfen, beim Wissensaustausch effektiver zu sein.

In dieser Studie haben wir eine Online-Expertise-Wissensgemeinschaft, eine QQ-Gruppe, gemessen, die ihre Dynamik jeden Tag erfasst und berechnet. Anschließend haben wir die vermittelnden Auswirkungen des Sharing-Verhaltens seiner Hauptmitglieder auf den Status der Mitglieder (Netzwerkzentralität) in verschiedenen Zeitzonen (Tagen) getestet. Der Hauptbeitrag unserer Studie konzentriert sich auf den Wissensaustausch. Diese Studie liefert theoretische Indikatoren für den Wissensaustausch unter hierarchieübergreifendem, individuellem Sharing-Verhalten. Zweitens hilft diese Studie zu untersuchen, ob es einen "Trägheitseffekt" des Wissensaustauschs in einem dynamischen Online-Wissensnetzwerk gibt und ob es sich auf dynamische Verhaltensentscheidungen zum Wissensaustausch auswirkt. Drittens hilft unsere Studie, den Netzwerkeffekt aus individuellen Perspektiven zu verstehen, indem sie aufzeigt, dass das Teilen von Verhaltensweisen, das Reaktionen anzieht, das Wachstum des Netzwerkstatus und gemeinsam das Wachstum des gesamten Netzwerks unterstützt.

Im nächsten Abschnitt schlagen wir Hypothesen vor, die auf Literaturrezensionen sowohl der Theorie der Netzwerkeffekte als auch der Wissensaustausch basieren. Die Online-Wissensaustausch-Beispielauswahl und -messung sowie die variable Bezeichnung werden in Research design: Network Analysis einer Online-Community aus der chinesischen Beratungsbranche berichtet. Mit empirischen Ergebnissen, die im Ergebnisbereich Analyse berichtet werden, haben wir unsere Diskussion und abschließende Schlussfolgerung im Diskussions- und Abschlussteil.

SCHLUSSFOLGERUNG

In der dynamischen virtuellen Community spiegelt sich das direkte Ergebnis des Wissensaustauschverhaltens in der individuellen Position (dem Grad der Knotenzentralität) wider. Darüber hinaus hat das individuelle Wissensaustauschverhalten einen "Trägheitseffekt": Der individuelle vorherige Status (der Grad der Knotenzentralität) beeinflusst das aktuelle Verhalten des Wissensaustauschs, während das aktuelle Verhalten des Wissensaustauschs den aktuellen Status im Wissensnetzwerk beeinflusst und einen Trägheitskreislauf zwischen persönlichem Verhalten und Netzwerkstatus bildet.

Diese Studie enthält folgende theoretische Beiträge:

1) Diese Studie erweitert die Theorie des individuellen Wissensaustauschs im Kontext zwischenmenschlicher dynamischer virtueller Gemeinschaften. Der Wissensaustausch gilt seit langem als eine Methode, um zur innovativen Leistung der Organisation beizutragen (Carmeli et al., 2013). Obwohl einige Wissenschaftler herausgefunden haben, dass das Verhalten des Wissensaustauschs in einem sozialen Netzwerk zwischen den Menschen eingebettet ist, z. B. In einer Mitarbeitergemeinschaft (Yong, et al., 2013) oder einer globalen innovativen Gruppe (Olaisen und Revang, 2017), wird das Verhalten des Wissensaustauschs nur als organisatorische Entscheidung untersucht. Diese Studie interessiert sich für die individuellen Ziele des Sharing-Verhaltens. Durch die Beantwortung einer grundlegenden Frage, "welche Art von Sharing-Action dazu beitragen könnte, den persönlichen Vorteil in der Gemeinschaft

aufzubauen", untersucht diese Studie den Mechanismus des Wissensaustauschverhaltens als individuelle Entscheidung.

2) Diese Studie bietet Aktionsstrategien für die individuelle Verhaltensentscheidung zum Wissensaustausch, um die Natur des individuellen Wissensverhaltens besser zu verstehen. Wissenschaftler haben das Verhalten des Wissensaustauschs als "Black Box" betrachtet und selten die Kategorien des Wissensaustauschs untersucht und untersucht. Während sich die meisten Literaturen auf die Beweggründe oder Vorläufer des Wissensaustauschs konzentriert haben, konzentriert sich diese Studie auf die Untersuchung von zwei Merkmalen des Verhaltens des Wissensaustauschs, der Häufigkeit und der Originalität. Darüber hinaus betrachtet diese Studie Frequenz und Originalität als zwei "Strategien" des Wissensaustauschs, um den persönlichen Vorteil in einer virtuellen Gemeinschaft aufzubauen, und untersucht die Beziehung zur Netzwerkposition in einer dynamischen virtuellen Gemeinschaft.
3) Diese Studie schlägt und testet den "Trägheitseffekt" des Wissensaustauschverhaltens und des Wissensnetzwerks sowie die Theorie der Netzwerkeffekte aus individueller Perspektive. Die Theorie des Netzwerkeffekts besagt, dass Organisationen oder Einzelpersonen im Zentrum mit der Entwicklung der Netzwerkstruktur weiterhin mehr Netzwerkeffekte erzielen werden. Es kann jedoch nicht genau vorhergesagt werden, wer die zentrale Position im Netzwerk ständig innehaben kann oder ob die externen Effekte des Netzwerks letztendlich als Ressource oder Einschränkungen betrachtet werden, um Pareto Optimality (Kumar und Sastry, 2013) für alle Teilnehmer zu erreichen. In einer dynamischen virtuellen Gemeinschaft demonstriert der "Trägheitseffekt" des Verhaltens, der sich aus der individuellen Analyse ergibt, die Netzwerkeffekttheorie auf der Mikroebene des Individuums und ermöglicht es, die Entwicklung des Netzwerkeffekts von der individuellen Verhaltensebene aus zu beschreiben. Basierend auf dem "Trägheitseffekt" des individuellen Sharing-Verhaltens können Menschen die Entwicklung einer Wissensgemeinschaft durch dieses mathematische Modell verfolgen und sogar vorhersagen.

Dieses Dokument hat die folgenden Einschränkungen:

1. Aufgrund des Zeitmangels wurden bei der Stichprobenauswahl in diesem Dokument nur die von einer professionellen Wissensgemeinschaft generierten Daten einen Monat lang getestet und es fehlt die Validierung aus mehreren Datensätzen. Die resultierenden Stichprobendaten sind nicht in der Lage, verschiedene Arten von Wissensgemeinschaften und -netzwerken zu vergleichen, und spiegeln nicht die Unterschiede zwischen den Sektoren wider.
2. Dieses Papier konzentriert sich auf individuelles Online-Verhalten und berücksichtigt nicht die Auswirkungen von Wissensaustausch Motivation und Verhaltensentscheidungsfindung auf individuelles Verhalten in der realen Welt.
3. In diesem Beitrag haben wir den "Trägheitseffekt" zwischen Wissensaustausch und Netzwerkpositionsdynamik nur anhand der Originalität und Häufigkeit des Sharing-Verhaltens getestet. Weitere Untersuchungen zu anderen Kategorien des Wissensaustauschverhaltens sind erforderlich.

TRANSLATED VERSION: PORTUGUESE

Below is a rough translation of the insights presented above. This was done to give a general understanding of the ideas presented in the paper. Please excuse any grammatical mistakes and do not hold the original authors responsible for these mistakes.

VERSÃO TRADUZIDA: PORTUGUÊS

Aqui está uma tradução aproximada das ideias acima apresentadas. Isto foi feito para dar uma compreensão geral das ideias apresentadas no documento. Por favor, desculpe todos os erros gramaticais e não responsacule os autores originais responsáveis por estes erros.

INTRODUÇÃO

O compartilhamento de conhecimento foi iniciado como um método de gestão do conhecimento (Kang, et al., 2017) e aprendizagem organizacional (Almeida e Soares, 2014), especialmente no contexto de gestão inovadora de processos (Zhou e Li, 2012), ou gestão da cadeia de suprimentos (Cai, et al., 2013). A maioria da literatura sobre compartilhamento de conhecimento tem como objetivo examinar se o compartilhamento de conhecimento pode melhorar o desempenho organizacional em inovação e aprendizagem e, se for o caso, como (Ritala, et al., 2015). Embora o desenvolvimento da tecnologia de redes sociais (Jiang, 2015) e o surgimento da economia compartilhada (Wang et al., 2011) nos últimos anos possam fazer do conhecimento compartilhar um método comum e crucial para os indivíduos na aprendizagem individual, nas redes sociais e até mesmo na melhoria da carreira (Chen e Hung, 2010). Especialmente nas redes de conhecimento online, o compartilhamento de conhecimento é principalmente para chamar "olhos" e transformá-lo em benefícios econômicos e sociais reais (Qiu e Wang, 2011). As ações individuais de compartilhamento de conhecimento não são apenas para a aprendizagem do conhecimento, mas também para a competição interpessoal, cooperação, auto-reputação ou mesmo experiências de free-rider (Liao et al., 2013). Portanto, revelar o mecanismo do comportamento de compartilhamento de conhecimento individual não é apenas importante para a gestão do conhecimento e aprendizagem organizacional em uma economia compartilhada, mas também ajuda a entender e estabelecer redes de compartilhamento de conhecimento, ao mesmo tempo em que incentiva os participantes a compartilhar. Além disso, a maioria dos estudiosos examina o compartilhamento de conhecimento em um contexto estático ou rede de conhecimento (Saifi et al., 2016; Reinholt e Foss, 2011), com apenas alguns modelos dinâmicos de compartilhamento de conhecimento a partir da perspectiva dos efeitos da rede (Gong, 2011; Bundas, 2011).

O compartilhamento de conhecimento individual na economia compartilhada tornou-se mais provável um comportamento individual, em vez de apenas uma decisão organizacional. Além disso, a decisão de se engajar no comportamento de compartilhamento de conhecimento está operando sob a estrutura dinâmica de toda a rede de conhecimento. Este estudo tem como objetivo explorar o mecanismo entre o caráter do comportamento individual de compartilhamento de conhecimento on-line e o status individual da rede, para ajudar os participantes individuais a obter mais benefícios sociais e econômicos, escolhendo um comportamento de compartilhamento efetivo. De acordo com a teoria dos efeitos da rede, pode-se ter mais conexões de rede com menos custos quando se ganha massa crítica (Economides e Himmelberg, 1995). Embora a teoria do efeito de rede indique que a escala dos participantes ajudará toda a rede a ganhar valor alternativo e melhorar o desempenho (Arroyo, 2007), as escolhas individuais e as decisões tomadas sob o efeito de rede ainda são um ponto cego. Mais conexões trazem mais capital social e outros benefícios para o indivíduo, e incentivam um comportamento mais compartilhado desses participantes. Portanto, se alguém recebeu mais atenção e resposta na rede de conhecimento no passado, é fácil prever que implantará comportamentos de compartilhamento semelhantes no futuro.

Uma das principais tarefas deste artigo é testar se os "efeitos da inércia" mencionados acima, que podem fazer com que o comportamento de compartilhamento de conhecimento individual melhore o status on-line, existam, uma vez que a estrutura e os participantes das redes de conhecimento online são dinâmicos. Além disso, este artigo tenta explorar o caráter do compartilhamento de comportamento para ajudar os participantes individuais a serem mais eficazes ao compartilhar conhecimento.

Neste estudo, medimos uma comunidade de conhecimento de conhecimento on-line, um grupo QQ, capturando e calculando sua dinâmica a cada dia. Em seguida, testamos os efeitos mediadores do comportamento de compartilhamento de seus principais membros sobre o status dos membros (centralidade da rede) em diferentes fusos horários (dias). A maior contribuição do nosso estudo tem como foco o compartilhamento de conhecimento. Este estudo fornece indicadores teóricos para o compartilhamento de conhecimento sob hierarquia cruzada, comportamento de compartilhamento individual. Em segundo lugar,

este estudo ajuda a explorar se há um "efeito inércia" do compartilhamento de conhecimento em uma dinâmica rede de conhecimento online e se isso impacta decisões dinâmicas de comportamento no compartilhamento de conhecimento. Em terceiro lugar, nosso estudo ajuda a entender o efeito da rede a partir de perspectivas individuais, revelando que o compartilhamento de comportamentos que atrai respostas ajudará o crescimento do status da rede e, coletivamente, o crescimento de toda a rede.

Na próxima seção, propomos hipóteses baseadas em revisões biblio literaturas tanto da teoria dos efeitos de rede quanto do compartilhamento de conhecimento. A escolha da amostra de compartilhamento de conhecimento on-line e a medição e a designação variável são relatadas no projeto de pesquisa: Análise de rede de uma comunidade on-line da seção de consultoria chinesa. Com os resultados empíricos relatados na seção de resultados de Análise, temos nossa discussão e conclusão final na seção discussão e conclusão.

CONCLUSÃO

Na comunidade virtual dinâmica, o resultado direto do comportamento de compartilhamento de conhecimento se reflete na posição individual (o grau de centralidade do nó). Além disso, o comportamento de compartilhamento de conhecimento individual tem um "efeito inércia": o status anterior individual (o grau de centralidade do nó) afeta o comportamento atual de compartilhamento de conhecimento, enquanto o comportamento atual de compartilhamento de conhecimento afeta o status atual na rede de conhecimento, formando um circuito inercial entre comportamento pessoal e status da rede.

Este estudo tem as seguintes contribuições teóricas:

1) Este estudo amplia a teoria do compartilhamento de conhecimento individual no contexto de comunidades virtuais dinâmicas entre pessoas. O compartilhamento de conhecimento tem sido considerado apenas um método para contribuir com o desempenho inovador organizacional por um longo tempo (Carmeli et al., 2013). Embora alguns estudiosos tenham descoberto que o comportamento de compartilhamento de conhecimento está incorporado em uma rede social entre pessoas, por exemplo, uma comunidade de funcionários (Yong, et al., 2013) ou um grupo inovador global (Olaisen e Revang, 2017), o comportamento de compartilhamento de conhecimento é examinado apenas como uma decisão organizacional. Este estudo está interessado nos objetivos individuais de compartilhar comportamentos. Ao responder a uma questão fundamental de "que tipo de ação de compartilhamento poderia ajudar a construir a vantagem pessoal na comunidade", este estudo explora o mecanismo do comportamento de compartilhamento de conhecimento como uma decisão individual.
2) Este estudo fornece "estratégias" de ação para a escolha do comportamento de compartilhamento de conhecimento individual, para melhor compreensão da natureza do comportamento do conhecimento individual. Os estudiosos têm considerado o comportamento do compartilhamento de conhecimento como uma "caixa preta", e raramente têm olhado e explorado as categorias de comportamento de compartilhamento de conhecimento. Embora a maioria da literatura tenha se concentrado nas motivações ou antecedentes do compartilhamento de conhecimento, este estudo se concentra em examinar duas características do comportamento, frequência e originalidade do compartilhamento de conhecimento. Além disso, este estudo considera a frequência e a originalidade como duas "estratégias" de compartilhamento de conhecimento para a construção da vantagem pessoal em uma comunidade virtual e analisa o inter-relacionamento com a posição da rede em uma comunidade virtual dinâmica.
3) Este estudo propõe e testa o "efeito inércia" do comportamento de compartilhamento de conhecimento e da rede de conhecimento, e a teoria dos efeitos da rede de uma perspectiva individual. A teoria do efeito de rede sustenta que as organizações ou indivíduos do centro continuarão a adquirir mais efeitos de rede com a evolução da estrutura da rede. No entanto, não se pode prever com precisão quem pode manter continuamente a posição central na rede ou se as externalidades da rede serão eventualmente consideradas como um recurso ou restrições para alcançar a Otimização do Pareto (Kumar e Sastry, 2013) para todos os

participantes. Em uma comunidade virtual dinâmica, o "efeito inércia" do comportamento resultante da análise individual demonstra a teoria do efeito de rede no nível micro do indivíduo e possibilita descrever a evolução do efeito de rede a partir do nível de comportamento individual. Com base no "efeito inércia" do comportamento de compartilhamento individual, as pessoas podem acompanhar e até mesmo prever a evolução de uma comunidade de conhecimento através desse modelo matemático.

Este artigo tem as seguintes limitações:

1. Devido à escassez de tempo, a seleção amostral neste artigo apenas testou os dados gerados por uma comunidade de conhecimento profissional por um mês e carece de validação de múltiplos conjuntos de dados. Os dados amostrais resultantes não são capazes de comparar diferentes tipos de comunidades e redes de conhecimento, e não refletem as diferenças entre os setores.
2. Este artigo se concentra no comportamento individual online e não considera os efeitos do compartilhamento de conhecimento motivação e tomada de decisão comportamental sobre o comportamento individual no mundo real.
3. Neste artigo, testamos o "efeito inércia" entre o compartilhamento de conhecimento e a dinâmica de posição de rede apenas pela originalidade e frequência do comportamento de compartilhamento. Mais pesquisas sobre outras categorias de comportamento de compartilhamento de conhecimento são necessárias.