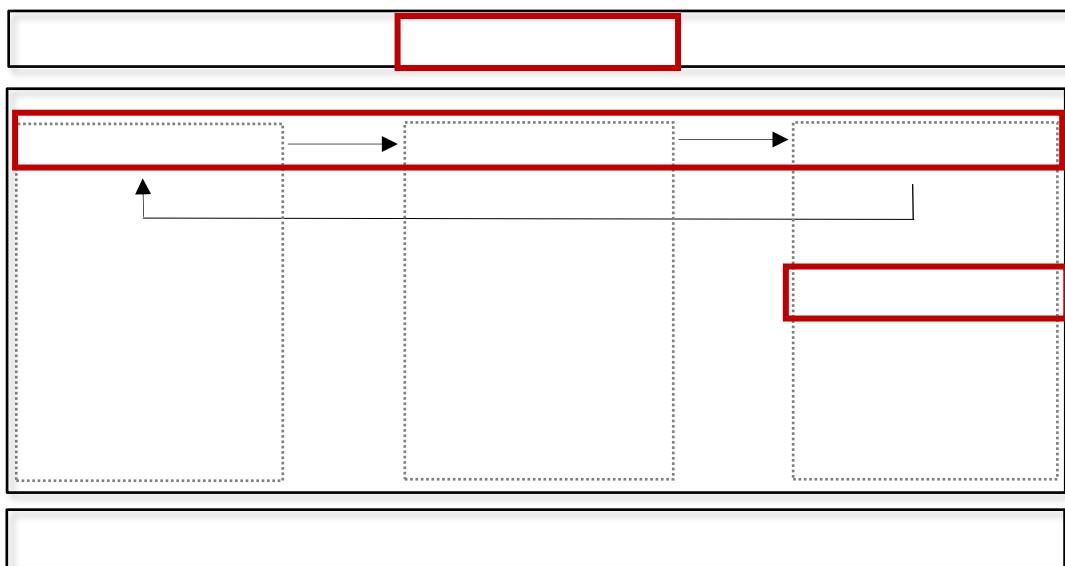


msdeng@mail.gufe.edu.cn

Bloom
Bloom

1



2

" 0 " 1 "

3

" " " " " " " "

1

1997 2001 A

2018 5 1390

2018 10

12 2019 20

2019 2018

6

2019 4

2017

80 70

2017

300

300

2019 5

(ST)

A

2022 8

" " " "

(ST)

2001

2021

4

2

1

5

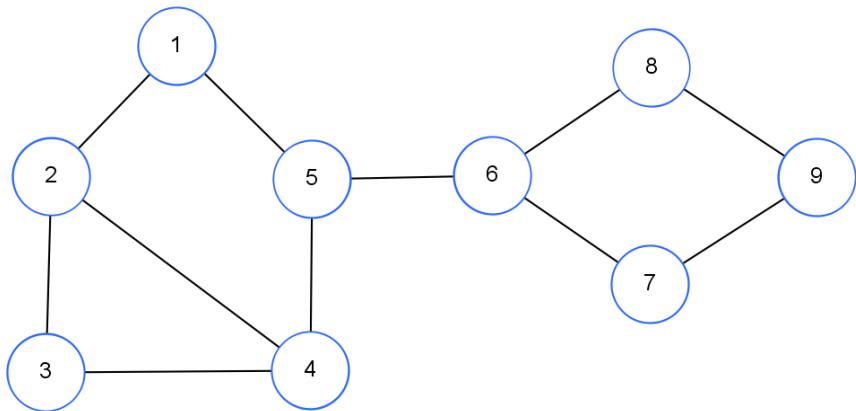
1

Vertex

1 Edge

Graph

1



1

2

1

(adjacent matrix)

$$\begin{pmatrix} & & & 9 & & 9 \\ 9 & & 9 & 9 & & 9 \\ 9 & 9 & & 9 & & 9 \\ 9 & 9 & 9 & 9 & & 9 \\ & & & 9 & 9 & 9 \\ & & & 9 & 9 & 9 \\ & & & 9 & 9 & 9 \end{pmatrix}$$

1

1 9

4 Byte

1

2 102Byte.

2019 12 A 3378

7

1

9 9

2 Byte=9 9 2 BB=9 9 2 B B=9 2 GB=9 2 TB=9 2 BB

1024byte 1000byte=1BB

1 1

IO

0

1

\dots

\dots

1

(1)

3 A

A

2

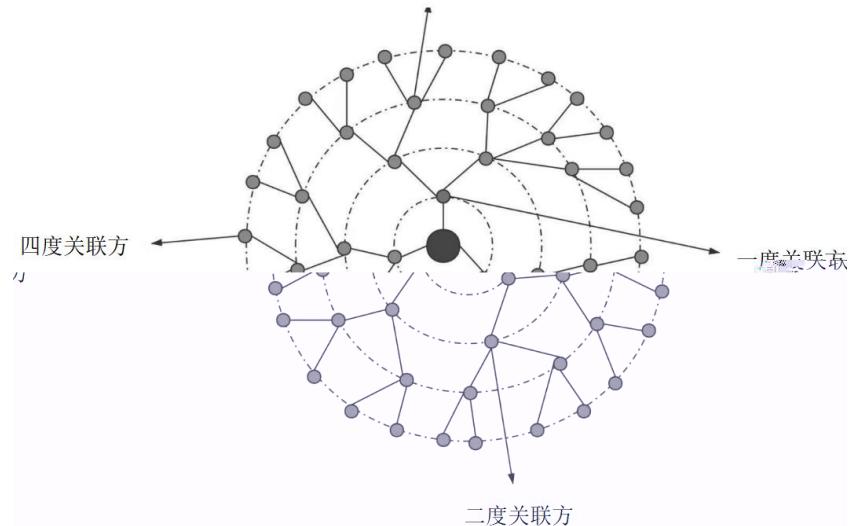
n

1

1

2

三度关联方



2

A

4

(1)

5

5

1

(2)

————

(3)

(3)

i

i

Related-partyGraph=<



>

1 9 0 : :

2 9 0 :

3 9

4

5 9 0 : :

6

7

8 9 0 : :

9 *i*

i

10 ————— 9 *i*

11 9 *i*

0

1

0

0

, 9

(4)

0 *NP*

Gibbs

:
:
:
:
1 3

Gibbs

“Nofira”.

d

1
2 9 0 : 9

3 9

4

5

6 Gibbs

9 —————

5

2008

|||

(XVAs)

" " "

10

1

A B

2

efficiency (cost)

CBU

1

" " "

2 " 0 1"

1

2

3

2021099

- 1 X. Yu, Q. Yang, R. Wang, R. Fang and B . Deng, Data cleaning for personal credit scoring by utilizing social media data: An empirical study, IEEE Intelligent Systems 35(2):7-15, 2020.
- 2 R. B agdalena, Y. Dananjaya, Effect of related-parties transactions to the value of enterprises listed on Indonesian stock exchange. European Journal of Business and Management, 7(6): 47-57, 2015.
- 3 J. Yan, F. An, R. Wang, L. Chen, X. Yu, B . Deng, Social network analysis of coauthor networks in inclusive finance in China, Y. Wang et al.(Eds): Data Science. ICBCSEE 2022, CCIS 1628, pp.111-122, 2022.
- 4 G. Yuan, and H. Wang, The general dynamic risk assessment for the enterprise by the hologram approach in financial technology, International Journal of Financial Engineering, 6(1):1950001,2019.

5. B Chen, R. Lei, and B . Deng, The influence-maximizing node selection algorithm based on local isolated centrality in large-scale networks implemented by distributed graph computing, 2022 IEEE 24th Int. Conf. on High Berformance Computing & Communications, 2022, 1234-1240.