

Learn from the past, look forward to the future

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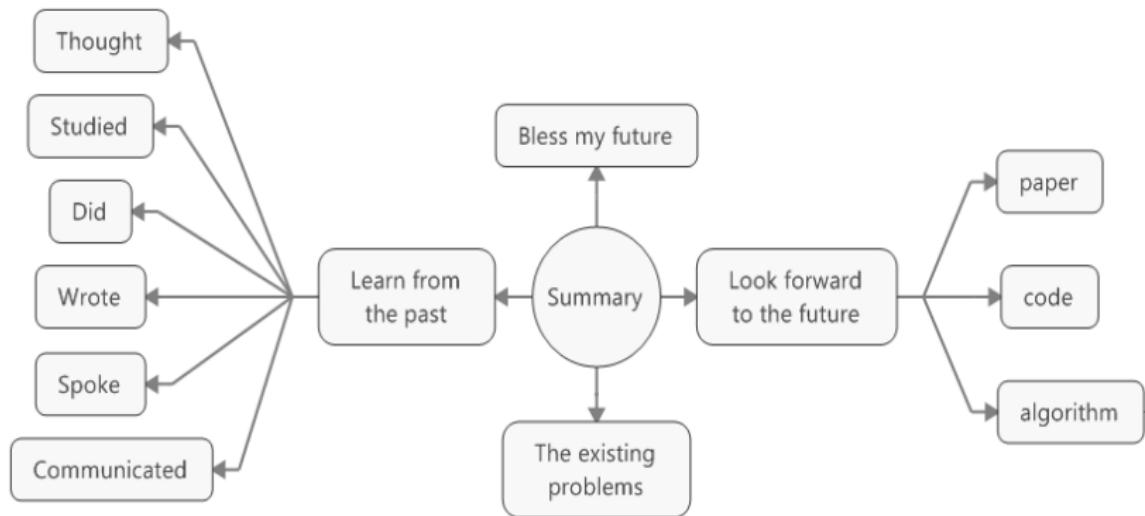
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Context diagram

Outline
Learn from the past
The existing problems
Look forward to the future
Bless my future

Context diagram



Outline

- Learn from the past
 - Thought, Studied, Did, Wrote, Spoke, Communicated, Got
- The existing problems
- Look forward to the future
 - Thinking, Studying, Doing, Writting, Speaking
- Bless my future

Context diagram	1.1 Learn from the past-Thought
Outline	1.2 Learn from the past-Studied
Learn from the past	1.3 Learn from the past-Did
The existing problems	1.4 Learn from the past-Wrote
Look forward to the future	1.5 Learn from the past-Spoke
Bless my future	1.6 Learn from the past-Communicated

Outline

1 Learn from the past

- 1.1 Learn from the past-Thought
- 1.2 Learn from the past-Studied
- 1.3 Learn from the past-Did
- 1.4 Learn from the past-Wrote
- 1.5 Learn from the past-Spoke
- 1.6 Learn from the past-Communicated

2 The existing problems

3 Look forward to the future

- 2.1 Look forward to the future-paper
- 2.2 Look forward to the future-code
- 2.3 Look forward to the future-algorithm

4 Bless my future

Context diagram

Outline

Learn from the past

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1.1 Learn from the past-Thought

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Learn from the past-Thought

- Find a good job, get a lot of wages
- Strengthen my knowledge on writing code
- Master bigdata's knowledge
- Improve my English ability
- Review basic knowledge, including computer network, operator system, data structure
- Get good Grades

Learn from the past-Studied

Study Books:

- Pattern Recognition and Machine Learning
- Thinking in Java
- Essentials of Probability

Attend courses:

- Software Engineering
- Operational Mathematics
- Design Pattern
- Learn node.js
- Politics

Context diagram

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Learn from the past-Did

Collect Materials:

- Format of the paper
- Machine Learning
- Collect paper of community detection
- Machine learning algorithms

Collect Project's Materials:

- collect paper of aerodynamic analysis

Context diagram

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Learn from the past-Wrote

Translate the papers:

- A latent factor model for highly multi-relational data
- Evolution of Cooperation in Multiplex Networks
- Network structure,metadata, and the predition of missing nodes and annotations

Write Code:

- Write primary student's managment system
- Write java code with spring mvc
- Work out the acm's problems

Learn from the past-Spoke

Spoke the papers:

- A latent factor model for highly multi-relational data
- Evolution of Cooperation in Multiplex Networks
- Network structure,metadata, and the predition of missing nodes and annotations(undone)

Harvest the knowledge:

- Evolutionary Game Theory
- EM arithmetic,K-Means arithmetic
- Latent Factor Model
-

Learn from the past-Spoke

A latent factor model for highly multi-relational data

- Published time:2012
- From:Neural Information
- Theme:Latent semantic analysis
- Contribution: In this paper, we propose a method for modeling large multi-relational datasets, with possibly thousands of relations. We illustrate the performance of our approach on standard tensor-factorization datasets where we attain, or outperform, state-of-the-art results.

Learn from the past-Spoke

Evolution of Cooperation in Multiplex Networks

- Published time:2012
- From: Scientific Reports
- Theme: Network dynamic
- Contribution:By coupling the evolutionary dynamics of a Prisoner's Dilemma game in each of the networks, they show that the resilience of cooperative behaviors for extremely large values of the temptation to defect is enhanced by the multiplex structure.

Learn from the past-Spoke

Network structure,metadata, and the predition of missing nodes and annotations(undone)

- Published time:2016
- Theme:Network structure predition
- Content:In this work we present a principled method to access both aspects simultaneously. We construct a joint generative model for the data and metadata, and a non-parametric Bayesian framework to infer its parameters from annotated datasets.

Learn from the past-Spoke

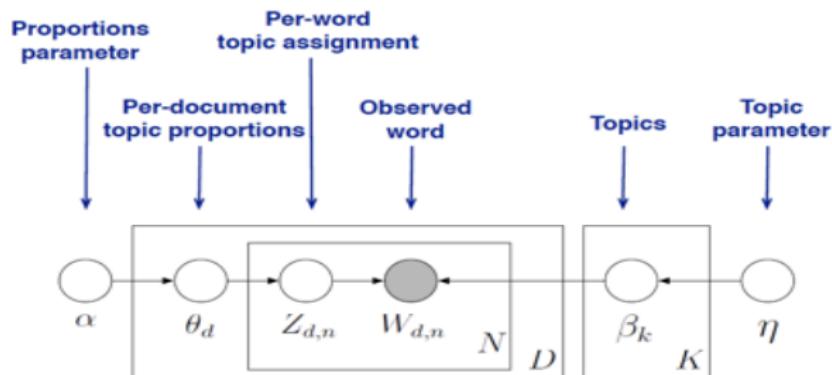
- We assess the quality of the metadata not according to its direct alignment with the network communities, but rather in its capacity to predict the placement of edges in the network.

Learn from the past-Communicated

- Presentation:Gao Feng
- Time:2016/10/14
- Theme:Topic Model
- Content:single model, mixed model,pLSI/aspect model
- LDA instruction:In natural language processing, latent Dirichlet allocation (LDA) is a generative statistical model that allows sets of observations to be explained by unobserved groups that explain why some parts of the data are similar.

Learn from the past-Communicated

LDA model graph:



$$\prod_{i=1}^K p(\beta_i | \eta) \prod_{d=1}^D p(\theta_d | \alpha) \left(\prod_{n=1}^N p(z_{d,n} | \theta_d) p(w_{d,n} | \beta_{1:K}, z_{d,n}) \right)$$

Learn from the past-Communicated

- Presentation:Li Jing
- Time:2016/10/22
- Theme:Social Networks
- Find cliques exits in Social Networks
- Content:Block model ,Stochastic model,Stochastic block model
- Stochastic model: A stochastic model is a tool for estimating probability distributions of potential outcomes by allowing for random variation in one or more inputs over time. The random variation is usually based on fluctuations observed in historical data for a selected period using standard time-series techniques.

Learn from the past-Communicated

- Stochastic block model:

1.Difinition:the stochastic block model is a generative model for random graphs. This model tends to produce graphs containing communities, subsets characterized by being connected with one another with particular edge densities.

2.Process method:

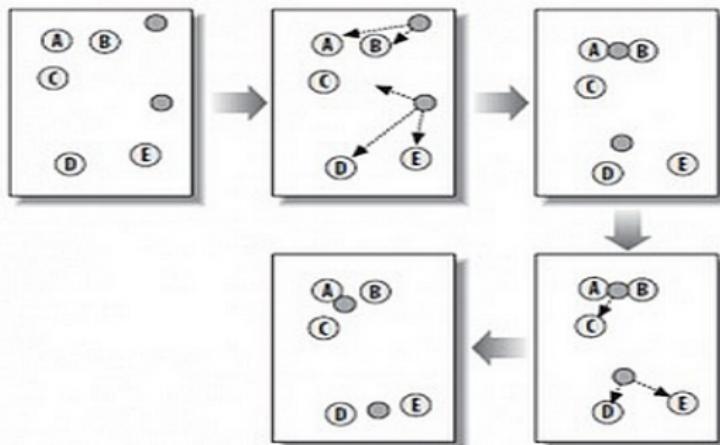
Model selection :The Dirichlet process

Prior probability :The Dirichlet Distribution

Posteriori probability :EM,Sampling the approximate

Learn from the past-Communicated

- K-Means Clustering algorithm:



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4 Bless my future

The existing problems

- The quantity of Reading the paper is not enough.
- It is a little difficult for me to look up papers.
- I could not make full use of my time.
- It is extremely lack of math knowledge.
- Lack of positive



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Look forward to the future-paper

- Insist on Reading a paper every two weeks.
- Be able to derive of the formula in the paper.
- Communicate with senior frequently, improve myself knowledge.
- Try my best to complete the experiment in the paper which i have read.

Look forward to the future-code

- Insist on Writing one hundred lines code every week.
- Stick to Reading books, try my best to complete follow books:

Thinking in Java
PHP and MySQL Web
Design Pattern
Data Structures and Algorithm Analysis in C

Look forward to the future-algorithm

- Stick to complete one acm's question in PKU every day.
- Revise for the algorithm i have realized.
- Begin to know about Machine Learning's algorithms, and apply them in my study.

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4 Bless my future

Bless my future

- Has not been difficult, then does not have attains.
- Today does not walk , will have to run tomorrow .
- Only has compared to the others early, diligently diligently, canfeel the successful taste.
- Nobody can casually succeed, it comes from the thoroughself-control and the will.
- Not matter of the today will drag tomorrow.
- Please enjoy the pain which is unable to avoid.

