Judul artikel : Community Detection Methods in Library's Books and Borrowers Social Network

Segmentation

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Penulis : Tedy Setiadi , Mohd Ridzwan Yaakub , Azuraliza Abu Bakar

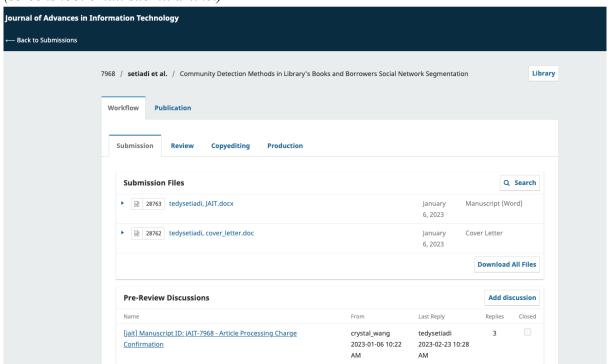
No	Keterangan	Tanggal
1	Submit Artikel	06-1-2023
2	Email respon dari pengelola jurnal	01-03-2023
3	Catatan Revisi dari reviewer jurnal	01-03-2023
4	Email respon penulis Revisi Mayor (berisi tabel revisi dan yang sudah diperbaiki-WAJIB ADA)	19-06-2023
5	Email respon reviewer jurnal terhadap perbaikan penulis dan Info Pembayaran	11-07-2023
6	Permintaan proofreading dari editor kepada Penulis	14-07-2023
7	Balasan pengiriman file proofreading dari Penulis	20-07-2023
8	Email editor pemberitahuan artikel sudah dikirim ke bagian publikasi	26-07-2023
9	Email pemberitahuan dari bagian produksi ada gambar yang harus diperbaiki	26-07-2023
10	Email respon penulis berupa merevisi gambar (berisi tabel revisi dan yang sudah diperbaiki -WAJIB ADA)	26-07-2023
11	Pemberitahuan Penerbitan artikel	28-07-2023
10	Penerbitan Artikel	10-11-2023

Lampiran

Berikut kami lampirkan komunikasi kami (penulis) dengan editor dan reviewer via email dan OJS

1. Submit Artikel via OJS

(screenshoot email submit artikel)



2. Email respon dari pengelola jurnal

(screenshoot email respon dari pengelola jurnal)
Berikut screenshoot respon editor di OJS
Notifications

×

[jait] Manuscript ID: JAIT-7968 - Major Revisions

2023-03-01 02:49 PM

Dear tedy setiadi, Mohd Ridzwan Yaakub, Azuraliza Abu Bakar,

Thank you for submitting your manuscript "Community Detection Methods in Library's Books and Borrowers Social Network Segmentation" to Journal of Advances in Information Technology.

The editorial team had assessed your submission and feel that it has potential for publication, so we would like to invite you to make major revisions for further review.

You can find your manuscript at the following link:

http://ojs.ejournal.net/index.php/jait/authorDashboard/submission/7968

Important notice: Please revise the manuscript according to the reviewers' comments and upload the revised file within March 25, 2023. The revisions should be clearly highlighted, for example using the "Track Changes" function in Microsoft Word, so that changes are easily visible to the editors and reviewers. Please provide a cover letter to explain point-by-point the details of the revisions in the manuscript and your responses to the reviewers' comments. (download author response template)

As the reviewer has suggested that your manuscript should **undergo extensive English editing**, please address this during revision. We suggest that you have your manuscript checked by a native English-speaking colleague or use a professional English editing service.

Instruction for uploading the revised version could be found at: https://docs.pkp.sfu.ca/learning-ojs/en/authoring.

Do not hesitate to contact us if you have any questions regarding the revision of your manuscript.

Ms. Cherry Chan cherry.chan@ejournal.net

3. Catatan Revisi dari reviewer jurnal (screenshoot email dari reviewer jurnal, lampirkan dokumen jika ada, daftar revisi) Catatan revisi dari reviewer ini diambil dari OJS sebagai berikut

Reviewer A:
Comments to Authors:
Comments to Authors.
The authors proposed a Community Detection Methods in Library's Books and Borrowers Social Network
Segmentation. The idea is quite interesting and i have following observations
1. The abstract should be more concise, write your outcome and novelty of the work
2. The contribution should be highlighted in the last paragraph of introduction
3. There are some typos need to fix, revise the article grammatically
4. Add more recent works such as
"SARWAS: Deep ensemble learning techniques for sentiment based recommendation system", "Forgery
detection using multiple light sources for synthetic images"
"A robust method to authenticate car license plates using segmentation and ROI based approach", "A
differentiated learning environment in domain model for learning disabled learners"
"ETH-LEACH: An energy enhanced threshold routing protocol for WSNs"
5. The method section need to elaborate with more mathematical foundations
6. Results need some improvements, compare the work with SOTA methods
Reviewer B:
Comments to Authors:
Equation no.2 is not clear, It is not complete.
All equations have a partial box around it, It can be removed.
A high level architecture or methodology diagram is required to analyse the flow of the proposed approach.
The cuthous are detail the commutational complexity of the average decrease and also also also also also also also also
The authors can detail the computational complexity of the proposed approach and also give significant
findings of how their approach outperforms in comparison to the existing approaches.
With regard to performance metric, the authors can discuss community recall and f-1 measure as the derive
metrics for the proposed approach.
metrics for the proposed approach.

4. Email respon penulis Revisi Mayor

(screenshoot email dan tabel perbaikan dari penulis)

Lampiran Laporan Review dan Respons Penulis kepada Reviewer via OJS

"Comments of the Reviewer" have been included (written in black), followed by "Author's response" (written in red), which explains how the changes have been incorporated, or provides further motivation. Some extracts from the paper to show how the reviewers' comments have been addressed are written in blue color. The location of the corrections/motivation has been indicated in red font on the updated manuscript.

We trust we have met the expectations of the Editor and Reviewers.

Author detailed response:

Reviewer 1:

Comment 1: The abstract should be more concise, write your outcome and novelty of the work

Response: Abstracts have been rewritten more concisely, and there is novelty in our work

Revised text: In this paper, we discuss the application of community detection methods to book-borrowers networks in libraries. The aim is to obtain a segment of books and borrowers that are closely linked to the lending network in the library.

This study applies six community detection methods, namely Louvain, Spinglas, Walktrap, Infomap, LPA and Greedy to identify groups of books and borrowers. Meanwhile, evaluating the effectiveness of this method uses the modularity, performance, coverage, density, community size, and community fit metrics.

The results showed that the community detection method was effective in identifying book segments and related borrowers in the library lending network. The louvain method was found to be most effective in identifying communities with higher quality and better interpretation. The results of segmentation of books and borrowers can support improving library collection management and increasing demand for books. provide insight into patterns of borrowing books to improve library services and user satisfaction

Comment 2: The contribution should be highlighted in the last paragraph of introduction

Response: The research contribution is added in the last paragraph of the introduction.

Revised text: The contribution of this research lies in the application of the community detection method to social networks of books and borrowers in libraries. By identifying closely related communities or groups of books and borrowers, this study provides insight into the borrowing patterns of library users and can help improve library management and services. This study also evaluates the effectiveness of various community detection methods in identifying clusters and provides recommendations for the most suitable methods for segmenting social networks of books and borrowers.

Comment 3: There are some typos need to fix, revise the article grammatically

Response: some typos that need to be corrected, revised the article grammatically has been done.

Revised text: in the revised manuscript.

Comment 4: Add more recent works such as

"SARWAS: Deep ensemble learning techniques for sentiment based recommendation system", "Forgery detection using multiple light sources for synthetic images"

"A robust method to authenticate car license plates using segmentation and ROI based approach", "A differentiated learning environment in domain model for learning disabled learners"

"ETH-LEACH: An energy enhanced threshold routing protocol for WSNs"

Response: has added more recent works.

Revised text: has added more recent works such as Tunali "Analysis of Book-borrowing Network using Complex Network Analysis Karmaşık Ağ Analizi Kullanılarak Kitap Ödünç Alma Ağının Analizi,".

.Lee [41] analyzed data on borrowing books at the university library, based on the behavior of returning borrowed books, analyzing the distribution of book returns.

Comment 5: The method section need to elaborate with more mathematical foundations

Response: has added

Revised text: Mathematically, community detection can be formulated as an optimization problem, where the objective is to find a partition of the nodes into non-overlapping communities that maximizes some quality function. One of the most widely used quality functions is modularity, which measures the degree of deviation of the observed network from a null model in which the nodes are connected randomly. Mathematical concepts and notations, evaluation matrices and others have been discussed previously

Comment 6: Results need some improvements, compare the work with SOTA methods

Response: This article emphasizes the application of the community detection method and determines the best method for borrowing books, not comparing it with SOTA

Revised text: -

Reviewer 2:

Comment 1: Equation no.2 is not clear, It is not complete

Response: It has been fixed

Revised text: $cov = \frac{E_c}{m}$.

Comment 2: All equations have a partial box around it, It can be removed.

Response: All equations been fixed.

Revised text: $per = \frac{E_c + E_c}{E}$ $den = \frac{1}{m} \sum_{i=1}^k E_c$ $f_c = \frac{c_d}{c} x 100\%$

 $B(x) = \begin{cases} 1, if(b_i s_j) \in E(G) \\ 0, otherwise \end{cases}$

Comment 3: A high level architecture or methodology diagram is required to analyse the flow of the proposed approach

Response: the methodology diagram has been added

Revised text:

in the revised manuscript.

Comment 4: The authors can detail the computational complexity of the proposed approach and also give significant findings of how their approach outperforms in comparison to the existing approaches

Response: In our paper to measure performance and compare algorithms not by the complexity of the algorithm, but by the modularity of the metrics, coverage, performance scores, densities, and the number of communities and community members generated..

Revised text: -

Comment r: With regard to performance metric, the authors can discuss community recall and f-1 measure as the derived metrics for the proposed approach.

Response: community recall and f-1 need groundtruth data, even though our data doesn't have groundtruth so we can't use these metrics

Revised text: community recall and f-1 need groundtruth data, even though our data doesn't have groundtruth so we can't use these two metrics.

Dalam versi Tabel sebagai berikut:

Matrix of Improvement

Title: Community Detection Methods in Library's Books and Borrower Social Network Segmentation

Reviewer A

No	Original Text	Reviewer's comment	Revised Text

"In library management, it is essential to support library promotion policies borrowers collections procurement to identify the segments of books and borrowers. The borrowing records help libraries realize readers' preferences and provide book recommendations. The social network analysis approach specifically community detection, can provide valuable insights into large-scale bookborrower networks. analyzes the bookborrower relationship to provide book-lending services that are more proactive than reactive. This study evaluates the performance of community detection methods in library books and borrowers' social network segmentations. The collected bookborrower data is represented in the projected bipartite graph, and community six detection algorithms, Spinglas, Louvain, Walktrap, Infomap, LPA, Greedy, and were employed. Modularity, performance, coverage, density, community size, and fit are the quality metrics used. The results show a trade-off between algorithms for accurate community detection. We obtained 16 segments on the book graph and 21 on the borrower graph in the library's social networks. **Implementing** community detection in library management can

The abstract should be more concise, write your outcome and novelty of the work

Abstracts have been rewritten more concisely, and there is novelty in our work " In this paper, we discuss the application of community detection methods to book-borrowers networks in libraries. The aim is to obtain a segment of books and borrowers that are closely linked to the lending network in the library. This study applies six community detection methods, namely Louvain, Spinglas, Walktrap, Infomap, Label Propagation Algorithm (LPA), and Greedy to identify groups of books and borrowers. Meanwhile, evaluating the effectiveness of this method uses the modularity, performance, coverage, density, community size, and community fit metrics. The results showed that the community detection method was effective in identifying book segments and related borrowers in the library lending network. The Louvain method was found to be most effective in identifying communities with higher quality and better interpretation. The results of segmentation of books and borrowers can support improving library collection management and

help the library administration optimize the procurement of books according to the existing budget and formulate library promotion strategies for the appropriate user segment"		increasing demand for books, provide insight into patterns of borrowing books to improve library services and user satisfaction.
"The network in SNA can be represented in a mathematical model graph consisting of a set of points, or vertices, connected in pairs by lines or edges. Many networks are not homogenous, consisting of diverse clusters rather than a uniform mass of nodes [37]. There are many edges between the vertices within the groups but fewer edges between the groups. The structures are depicted in Fig.1, where three communities are denoted by dotted circles, which have denser internal relationships than relationships between groups. The problem of community detection is finding communities in large networks automatically"	The contribution should be highlighted in the last paragraph of introduction	The research contribution is added in the last paragraph of the introduction "The contribution of this research lies in the application of the community detection method to social networks of books and borrowers in libraries. By identifying closely related communities or groups of books and borrowers, this study provides insight into the borrowing patterns of library users and can help improve library management and services. This study also evaluates the effectiveness of various community detection methods in identifying clusters and provides recommendations for the most suitable methods for segmenting social networks of books and borrowers . ""
	There are some typos need to fix,revise the article grammatically Add more recent works	some typos that need to be corrected, revised the article grammatically has been done has added more recent

Manuscript received xx xx 2023; revised xx xx 2023; accepted xx xx 2023. Manuscript received xx xx 2023; revised xx xx 2023; accepted xx xx 2023.

such as "SARWAS": Deep ensemble learning techniques for sentiment based recommendation system", "Forgery detection using multiple light sources for synthetic images", "A robust method to authenticate car license plates using segmentation and ROI based approach", "A differentiated learning environment in domain model for learning disabled learners", "ETH-LEACH: AN energy enhanced threshold routing protocol for WSNs"	works such as Tunali "Analysis of Bookborrowing Network using Complex Network Analysis Karmaşık Ağ Analizi Kullanılarak Kitap Ödünç Alma Ağının Analizi,". "'Lee [41] analyzed data on borrowing books at the university library, based on the behavior of returning borrowed books, analyzing the distribution of book returns".
The method section need to elaborate with more mathematical foundations	Mathematically, community detection can be formulated as an optimization problem, where the objective is to find a partition of the nodes into non-overlapping communities that maximizes some quality function. One of the most widely used quality functions is modularity, which measures the degree of deviation of the observed network from a null model in which the nodes are connected randomly. Mathematical concepts and notations, evaluation matrices and others have been discussed previously
Results need some improvements, compare the work with SOTA methods	This article emphasizes the application of the community detection method and determines the best method for borrowing books, not comparing it with SOTA

Reviewer B

No	Original Text	Reviewer's comment	Revised Text
1	· ·	Equation no. 2 is not clear,	Equation no.2 has been corrected
	$cov = \frac{E_c}{m} $ (2)	it is not complete.	$cov = \frac{E_c}{m} $ (2)
		All equations have a partial box around it, It can be removed	$per = \frac{E_c + E'_c}{E}$
			$den = \frac{1}{m} \sum_{i=1}^{k} E_c$
			$f_c = \frac{c_d}{c} x 100\%$
			$B(x) = \begin{cases} 1, if(b_i s_j) \in E(G) \\ 0, otherwise \end{cases}$
		A high level architecture or methodology diagram is required to analysethe flow of the proposed approach	the methodology diagram has been added(figure 2.)
			Collect Book Lisan Constitut a Bigenthe Book-Bornwer Projection of Book Bornwer Network Projection
		The authors can detail the	In our paper to measure
		computational complexity	performance and compare
		of the proposed approach	algorithms not by the complexity of
		and also give significant findings of how their	the algorithm, but by the modularity
		approach outperforms in	of the metrics, coverage,
		the comparison to the	performance scores, densities, and the number of communities and
		existing approaches	community members generated.
		With regard to	community recall and f-1 need
		performance metric,the	groundtruth data, even though our
		authors can discuss community recall ad f-1	data doesn't have groundtruth so we can't use these two metrics.
		measures as the derived	can t doo triose two motions.
		metrics for the proposed	
		approach	

5. Respon reviewer jurnal terhadap perbaikan penulis di OJS bahwa paper sudah diterima untuk Publikasi dan Pembayaran

(screenshoot email respon pengelola jurnal)

Notifications

[jait] Manuscript ID: JAIT-7968 - Accepted for Publication

2023-07-11 11:12 AM

Dear tedy setiadi, Mohd Ridzwan Yaakub, Azuraliza Abu Bakar:

We are pleased to inform you that the following paper has been officially accepted for publication in Journal of Advances in Information Technology.

Manuscript ID: JAIT-7968

Title: Community Detection Methods in Library's Books and Borrowers Social Network Segmentation Submission URL: http://ojs.ejournal.net/index.php/jait/authorDashboard/submission/7968

We are excited to move forward with your submission. We will now make the final preparation, and then return the edited manuscript to you for your approval.

Please feel free to email us with any questions.

Ms. Cherry Chan cherry.chan@ejournal.net

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Journal of Advances in Information Technology

Website: http://www.jait.us/

Indexed in ESCI (Web of Science, Impact Factor 2022: 1.0), Scopus (CiteScore 2022: 3.1)

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Info Pembayaran

[jait] Manuscript ID: JAIT-7968 - Payment

Participants

Ms. Cherry Chan (cherry_chan)

tedy setiadi (tedysetiadi)

Messages

Note

Dear tedy setiadi.

cherry_chan 2023-07-11 11:12

Congratulations! Your paper was officially accepted for publication in "Journal of Advances in Information Technology*.

Title: Community Detection Methods in Library's Books and Borrowers Social Network Segmentation

Submission URL:

http://ojs.ejournal.net/index.php/jait/authorDashboard/submission/7968

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Thank you very much for your support of open access publishing.

Ms. Cherry Chan

cherry.chan@ejournal.net

13

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6. Permintaan proofreading dari editor kepada Penulis

[jait] Manuscript ID: JAIT-7968 - Proofreading

Participants

us.

Ms. Cherry Chan

cherry.chan@ejournal.net

Ms. Cherry Chan (cherry_chan) tedy setiadi (tedysetiadi)

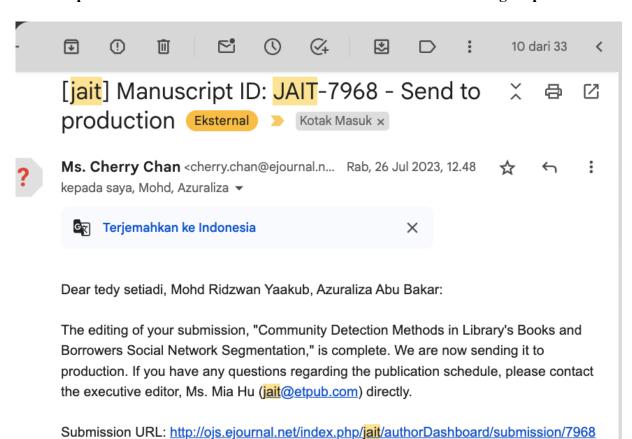
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7. Balasan artikel Proofreading dari Penulis

▶ Dear Ms. Cherry Chan,
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 Regards,
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 □ tedysetiadi, 7968-Manuscript (Word)-38720-1-9-20230720_final.docx

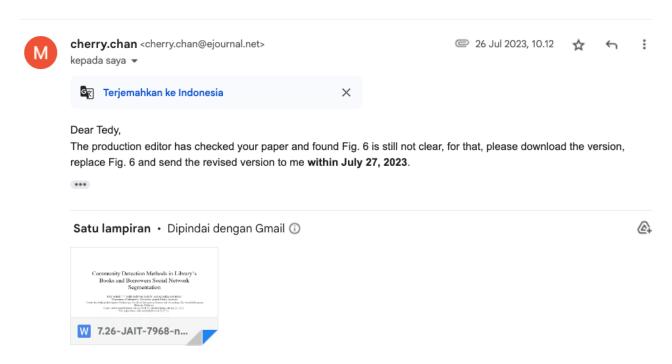
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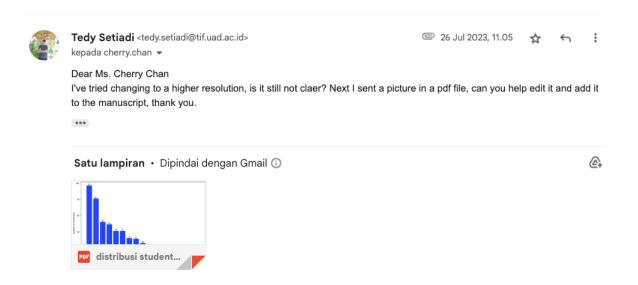
15

9. Email pemberitahuan bagian produksi ada gambar harus diperbaiki

(screenshoot email dan tabel perbaikan dari penulis)



10. Email respon penulis berupa mengirim revisi gambar



Tabel revisi

No	Original Text	Reviewer's comment	Revised Text
1		found fig 6 is still not clear	fig 6 has been fixed

11. Pemberitahuan Penerbitan

(screenshoot email dari pengelola jurna)



JAIT Editorial Office <jait@etpub.com>

Jum, 28 Jul 2023, 13.37



kepada saya 🔻



Dear Tedy Setiadi,

Thank you for your support to JAIT.

Your manuscript JAIT-7968 will be published in V14N6, Nov.-Dec. 2023 issue.

Usually one manuscript will be published in 4 months after being sent to production stage.

Best regards,

--

JAIT Editorial Office

Journal of Advances in Information Technology

Website: http://www.jait.us/

Indexed in ESCI (Web of Science, Impact Factor 2022: 1.0), Scopus (CiteScore 2022: 3.1)

12. Info Artikel sudah diterbitkan dari OJS

[jait] Manuscript ID: JAIT-7968 - Paper has been published

×

Participants

Ms. Mia Hu (mia_hu)

tedy setiadi (tedysetiadi)

Messages Note Dear Authors, We are pleased to inform you that your article "Community Detection Methods in Library's Books and Borrowers Social Network Segmentation" has been published in "Journal of Advances in Information Technology" and is available online:

Website link: https://www.jait.us/show-233-1430-1.html

Please take a moment to check that everything is correct. You can reply to the journal editorial office (jait@etpub.com) if there is a problem. Note that at this stage we will not accept further changes to the manuscript text.

Thank you for choosing "Journal of Advances in Information Technology" to publish your work, we look forward to receiving further contributions from your research group in the future.

Ms. Mia Hu mia.hu@ejournal.net

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