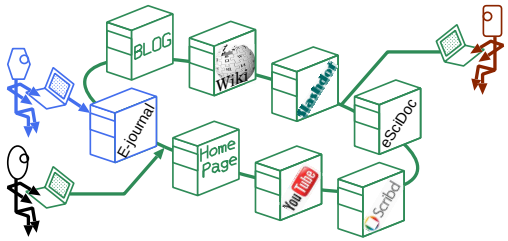
Longed-for functions of digital repository learned from my self-archiving activity

S. Todoroki

National Institute for Materials Science



Slide 1

On 22nd July 2009, one of my YouTube video suddenly gained more than 1000 views, a few percents of which was found to visit the related sites of mine. It is my self-archiving activity that enabled to generate this traffic and that has been supported by my informatics workbench for eight years. I request for some new functions to be integrated to digital repository including manuscript writing support system and eScience infrastructure.

http://pubman.mpdl.mpg.de/pubman/item/escidoc:94971

DRFtech-Kyoto:
Workshop of application of Infrastructure for eScience and eResearch
7th Sep. 2009: Library Hall, Kyoto University

Self-introduction

S. Todoroki

- Research on optical fibers (NTT→NIMS)
  ⟹ Publish them in OA Journals
- Write readings for researchers (in Jap. & Eng.)
  ⟹ Self-archive them at Scribd
- TEXnician, Rubyst, Debian GNU/Linux user
- First tester of NIMS Digital Library .e SciDoc

Slide 2

OVERVIEW

Required functions for digital repository

Happenings

What was going on 47 days ago?

Backstage

How do I manage writing & self-archiving?

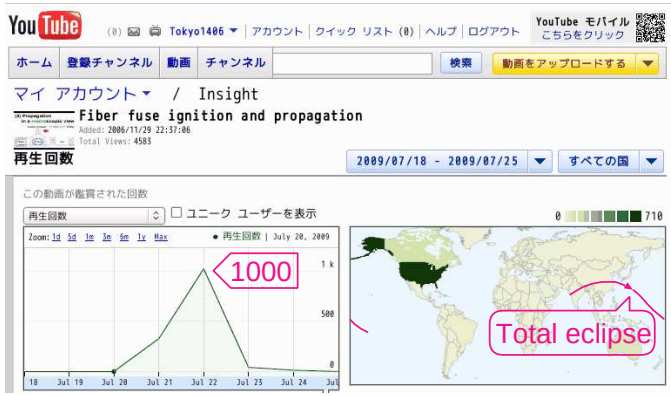
Proposals

What functions do I hope to realize?

Slide 3

Happenings

on 22 July, 2009

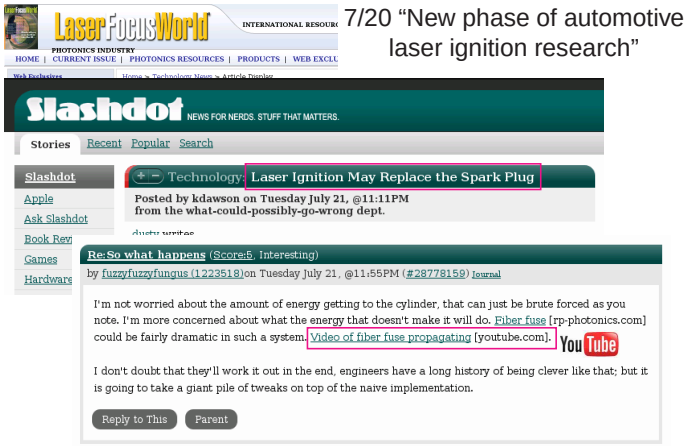


Slide 4

Happenings

LaserFocusWorld → Slashdot.org

7/20 "New phase of automotive laser ignition research"



Slide 5

Happenings

Cited video on YouTube

- Made on March 2005, published in an OA-journal

- Noticed 2 URLs

⟹ My list of papers on this phenomenon (fiber fuse)

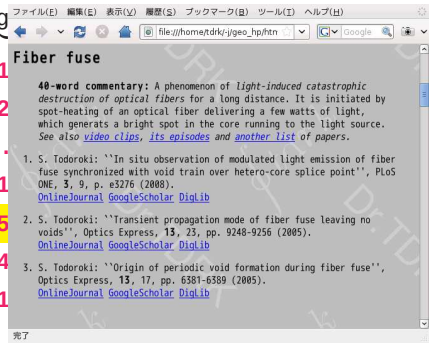
⟹ An essay for general public@Scribd

Slide 6

Happenings

Access to my homepage

2009 年		in Eng	
7/18(sat)	2	.	1
7/19(sun)	4	1	2
7/20(mon)	3	.	.
7/21(tue)	5	1	1
7/22(wed)	6	1	15
7/23(thu)	3	.	4
7/24(fri)	6	.	1



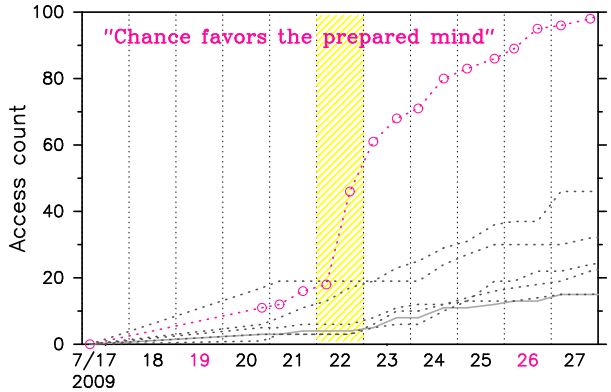
- 1% of viewers visited
- 3 OA papers are listed ⟸ unable to chase

Slide 7

Happenings

Access to Scribd

- 3% of viewers visited

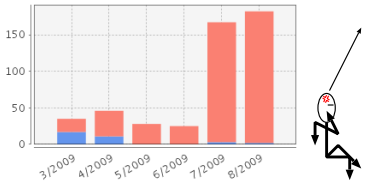


Slide 8

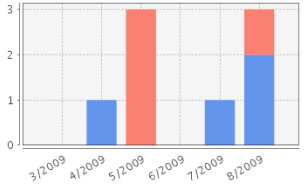
As an aside

Access to the essay on NIMS Digital Library .e SciDoc

Item Retrievals



Downloads



Researcher portfolio @ NIMS Digital Library .e SciDoc

Footnote #18

"Beyond Institutional Repositories" Social Science Research Network. 2009, Jun 25.

Japanese translation published in early Aug.

romary.eps

Slide 9

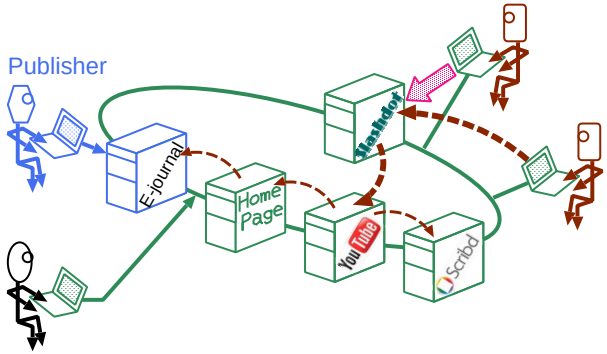
As an aside

Cited page on NIMS Digital Library .e SciDoc

Slide 10

Happenings

What was going on



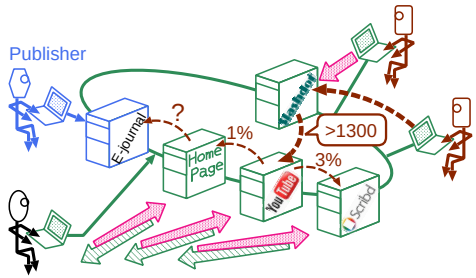
Original paper published⟹Self-archiving

⟹A comment submitted⟹Traffic!

Slide 11

Happenings

The stage for this happenings



- Related materials were Self-archived.
- Links were placed among them.
- Their access counts were monitored.

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OVERVIEW

Required functions for digital repository

Happenings

Nothing self-archive, nothing gain.

Backstage

How do I manage writing & self-archiving?

Proposals

What functions do I hope to realize?

Slide 13

Backstage

How do I manage writing & self-archiving?

- The links to navigate
- The system to find

} the traffic

⇑ are managed **with least labor** for 8 years

Slide 14

Backstage

How do I manage writing & self-archiving?

Daily task

What is the policy to keep the information collected?

Support system

How do I find the past manuscripts quickly?

Self-archiving

How do I promote them & get the response w/o labor?

Slide 15

Daily task

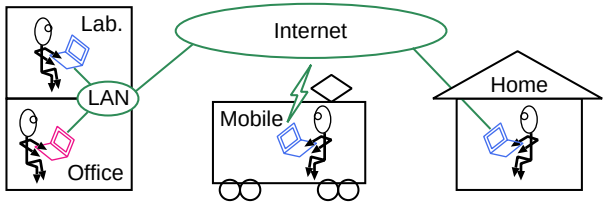
Info. should exist in only one place.

—Once and Only Once

- Automatic HDD sync via network
- Any file is found in same folder in different PC

cf. Dropbox ZumoDrive

- Memory stick is easy to be lost!



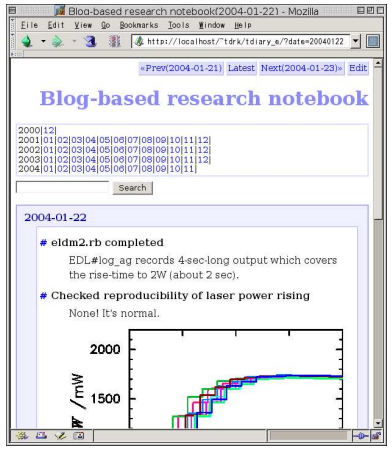
Slide 16

Daily task

Blog-based research notebook

- Blog + user authentication
- Writable / Browseable at Office/Home
  ⟸ HDD sync.
- Full-text search

see Ref.[5]



Slide 17

Backstage

How do I manage writing & self-archiving?

Daily task

"Once & only once": synchronizing HDDs & e-logbooks

Support system

How do I find the past manuscripts quickly?

Self-archiving

How do I promote them & get the response w/o labor?

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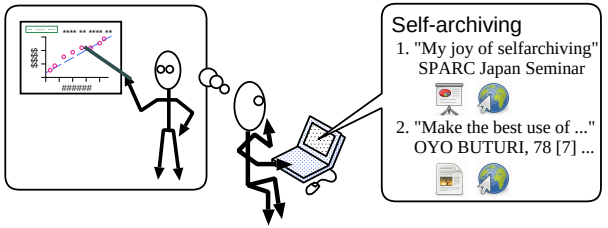
Support system

To find past manuscripts

- Hypertext list of research achievements containing links to local manuscript files;

  "Memory of past publications" is the key to search.
- Easy to find graphics too

see Ref.[4]



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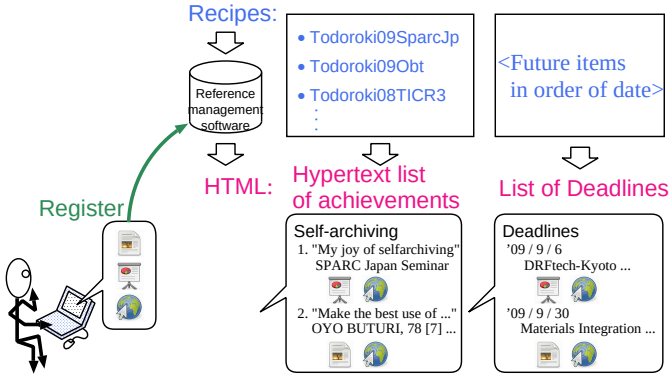
Support system

Automatic generation from DB

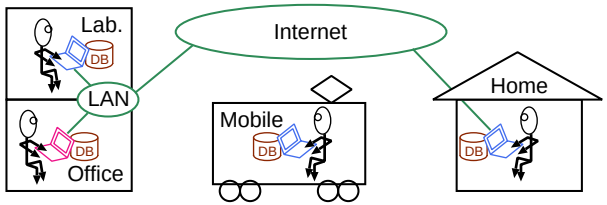


Slide 20

Support system

plus OaOO

- Manuscript writing support anytime, anywhere.



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Backstage

How do I manage writing & self-archiving?

Daily task

"Once & only once": synchronizing HDDs & e-logbooks

Support system

Publication list w/ links to past manuscripts in HDD

Self-archiving

How do I promote them & get the response w/o labor?

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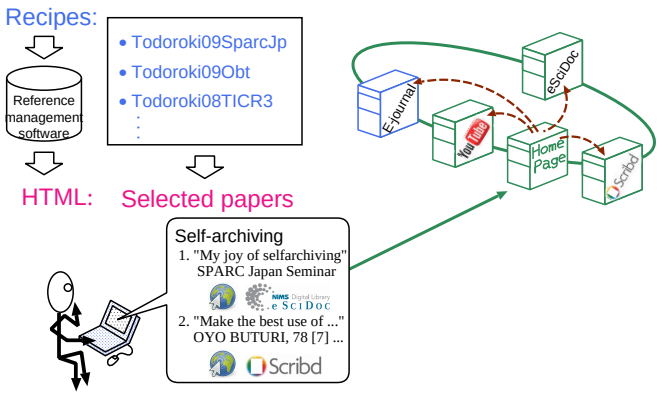
Self-archiving

Homepage in sync with local DB



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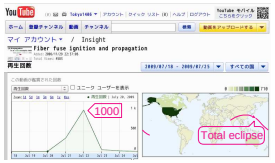
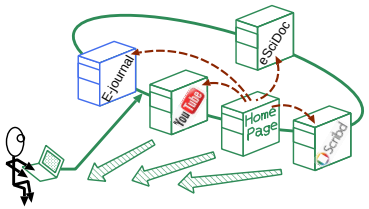
Self-archiving

Semi-automatic stats analysis





in English

2009 年								
7/18(sat)	2	.	1	.	2	1	.	.
7/19(sun)	4	1	2	1	1	2	.	.
7/20(mon)	3	.	.	1	4	8	1	1
7/21(tue)	5	1	1	.	7	12	1	1
7/22(wed)	6	1	15	1	5	13	2	2
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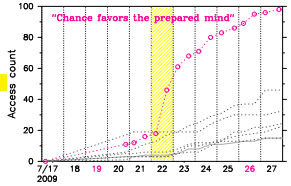
7/24(fri)	6	.	1	.	6	8	2	1



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Backstage

How do I manage writing & self-archiving?

Daily task

"Once & only once": synchronizing HDDs & e-logbooks

Support system

Publication list w/ links to past manuscripts in HDD

Self-archiving

Homepage in sync with DB; semi-automatic statistics

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OVERVIEW

Required functions for digital repository

Happenings

Nothing self-archive, nothing gain.

Backstage

IT-supported OaOO infrastructure & publication list

Proposals

What functions do I hope to realize?

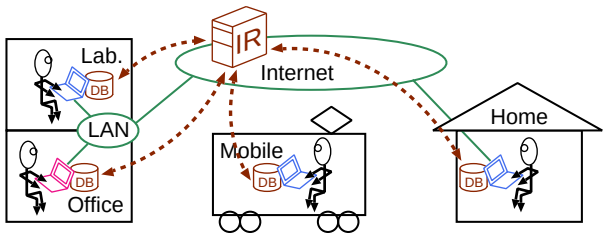
Slide 26

Proposals

OaOO environment

- Every researcher has his/her own DB.

$\Longrightarrow$ Automatic sync among DBs is required.



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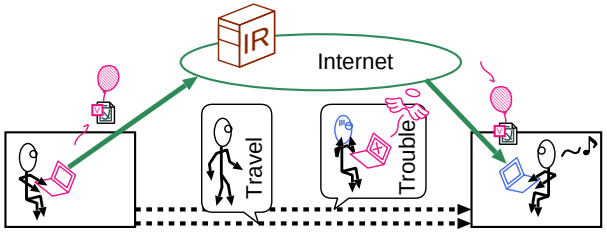
Proposals

Automatic sync btw PCs & archive

- Manage paths to the files in PC



- Retrieve old files through IR
- Version management, Collaborative writing support

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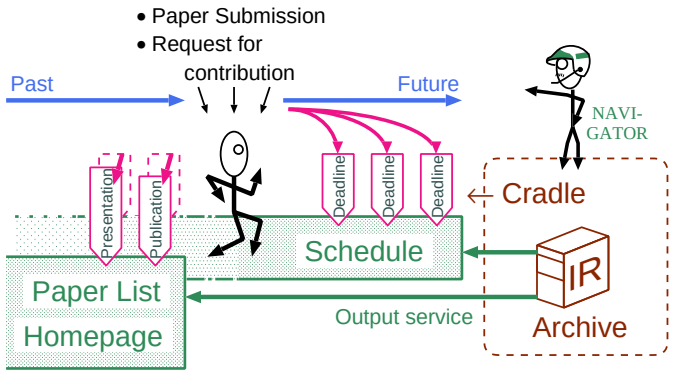
Proposals

Cradle to Archive; give & take

— Securing manuscripts before publication



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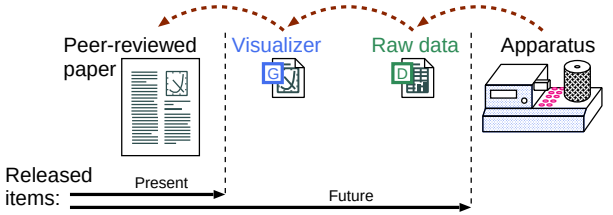
Proposals

SA of data files ⟶ eScience

- Research papers: paper ⟶ e-file
  ⟹ Figures: Dot Matrix image
  ⟶ Raw data + Visualizer
- Voluntary statement of traceability for ethical issues



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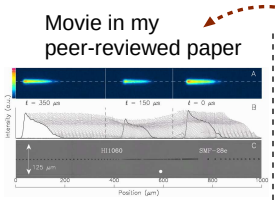
Proposals

An example of mine



PLoS ONE, 3 [9] e3276 (2008)

Movie in my peer-reviewed paper

Visualizer — Ruby Script

Raw data — Binary Files

High-speed Camera

Photron APX-RS

managed through e-Research notebok

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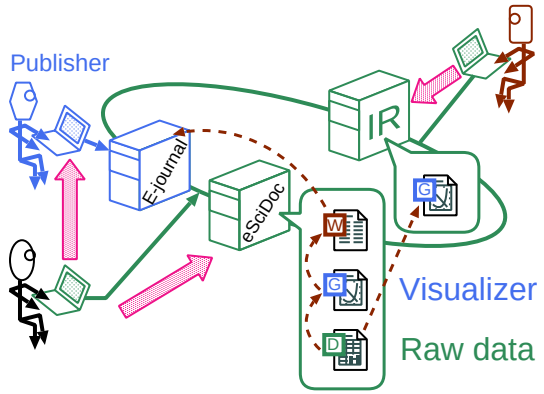
Proposals

Probable style of eScience



SA of papers⟹SA of data⟹Dissemination

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Conclusion

Required functions for digital repository

Happenings

Nothing self-archive, nothing gain.

Backstage

IT-supported OaOO infrastructure & publication list

Proposals

Manuscript writing support & eScience infrastructure

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References

Case study of Self-archiving

1. S. Todoroki: "Make the best use of your serendipity by inspiring your audience". (Translated from *OYO BUTURI*, **78** [7] pp.668-671, 2009)
2. S. Todoroki: "My joy of self-archiving", The 1st SPARC Japan seminar 2009 (Translated handout).
3. S. Todoroki: "Disseminate your work beyond your research field through self-archiving" (2008). (Translated from *Materials Integration*, **21** [12] pp.75-76, 2008)

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References

Personal informatics workbench

4. S. Todoroki: "Manuscript writing support system for researchers based on hypertext list of their achievements" (2008). (Translated from *Ceramics Japan*, **42** [7] pp.520-524, 2007)
5. S. Todoroki, T. Konishi and S. Inoue: "Blog-based research notebook: personal informatics workbench for high-throughput experimentation", *Appl. Surface Sci.*, **252** [7] pp. 2640-2645 (2006).

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