# dCollection

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KERIS

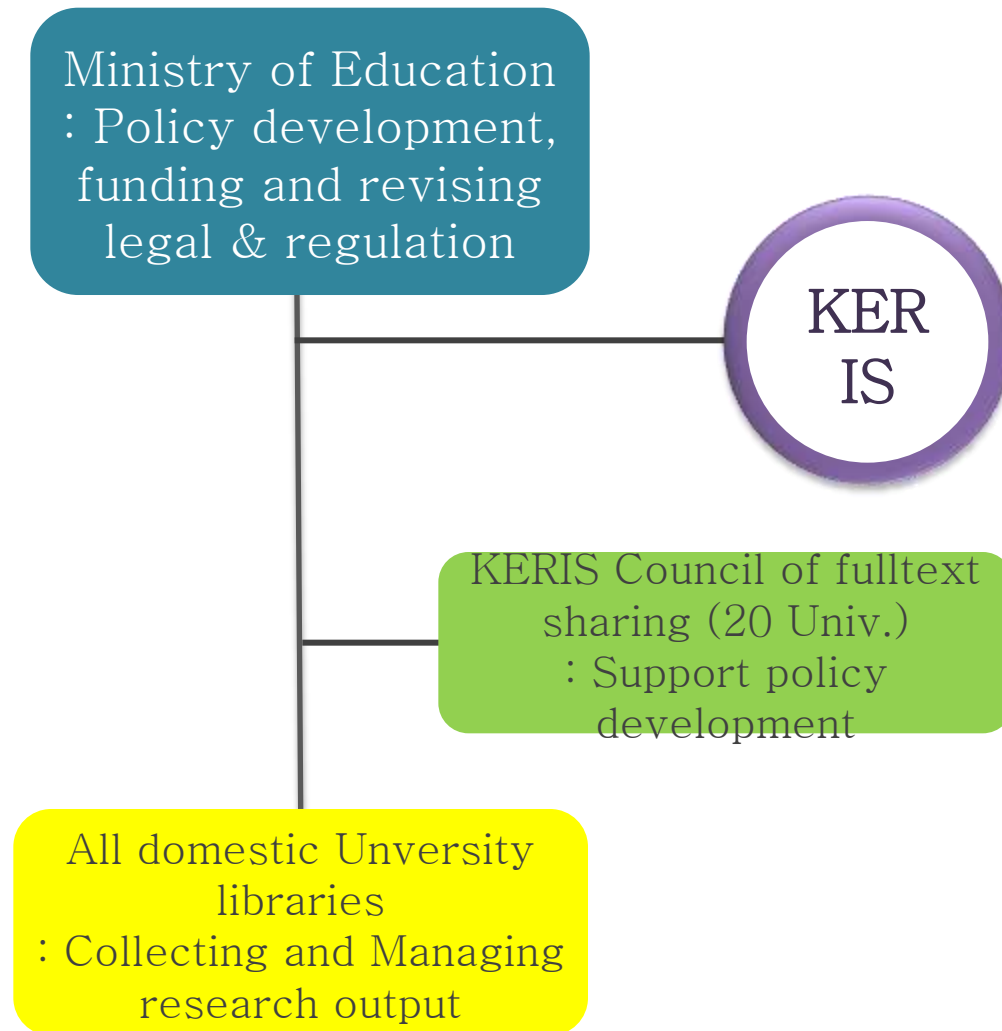KOREA EDUCATION AND RESEARCH INFORMATION SERVICE

# Table of Contents

KERIS KOREA EDUCATION & RESEARCH INFORMATION SERVICE

# Goal of dCollection System

## Goal for establishment

Enhancing the quality of research by building and operating dcollection system which collect and share research output produced by Univ.

# KERIS Roles

Ministry of Education
: Policy development, funding and revising legal & regulation

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KERIS Council of fulltext sharing (20 Univ.)
: Support policy development

All domestic Unversity libraries
: Collecting and Managing research output

**Roles**

- Support Policy development and implementation

- Planning & design

- Secure Budget

- Building System

- Operating Service

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# dCollection Overview

## What is dCollection?

– dCol. is abbreviation of Digital Collection

– dCol. has role of Institutional repository(IR)

– dCol. collect, preserve, manage, distribute digital research output produced by domestic university faculty and student

– Students can summit electronically thesis and dissertations through dCollection System

– Metadata of dCol. is tranferred to RISS and then users can search the metadata and link to fulltext.

– 60,000 ~ 70,000 thesis(& dissertations) are updated every year

# dCollection Overview

## What is policy of dCollection project?

– Discuss with KERIS council of sharing fulltext regarding to deciding operating Policy

– Metadata of dCol. is offered to portal sevices through dCollection central system

– KERIS upgrade dCollection program 2 times per year through reflecting request of librarians

– Authors can decide whether their dissertations open or not open to the public through dCollection system.

– Authors can select options of CCL and DRM.

– KERIS provide dCollection training program for librarians 2 times per year.

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# Current situation of dCol.

## dCollection members

– Annual stats.

(as of Dec. 2013)

| dCollection | 2003 | 2004 | 2005 | …. | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|
| No. of inst. | 4 | 20 | 40 | …. | 216 | 220 | 226 |

– 55 Universities have their own IR(Institutional Repository)

- Distribute and install dCollection programm on University

    libraries'server

- Metadata including fulltext linking URL is transferred to

dCollection

    centeral system(KERIS system)

- Fulltexts exist in University library local dCollection server.

- Developed 3 versions of dCollection program(Oracle, Informix,

# Current situation of dCol.

## dCollection members

– Annual stats.

(as of Dec. 2013)

| dCollection | 2003 | 2004 | 2005 | …. | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|
| No. of inst. | 4 | 20 | 40 | …. | 216 | 220 | 226 |

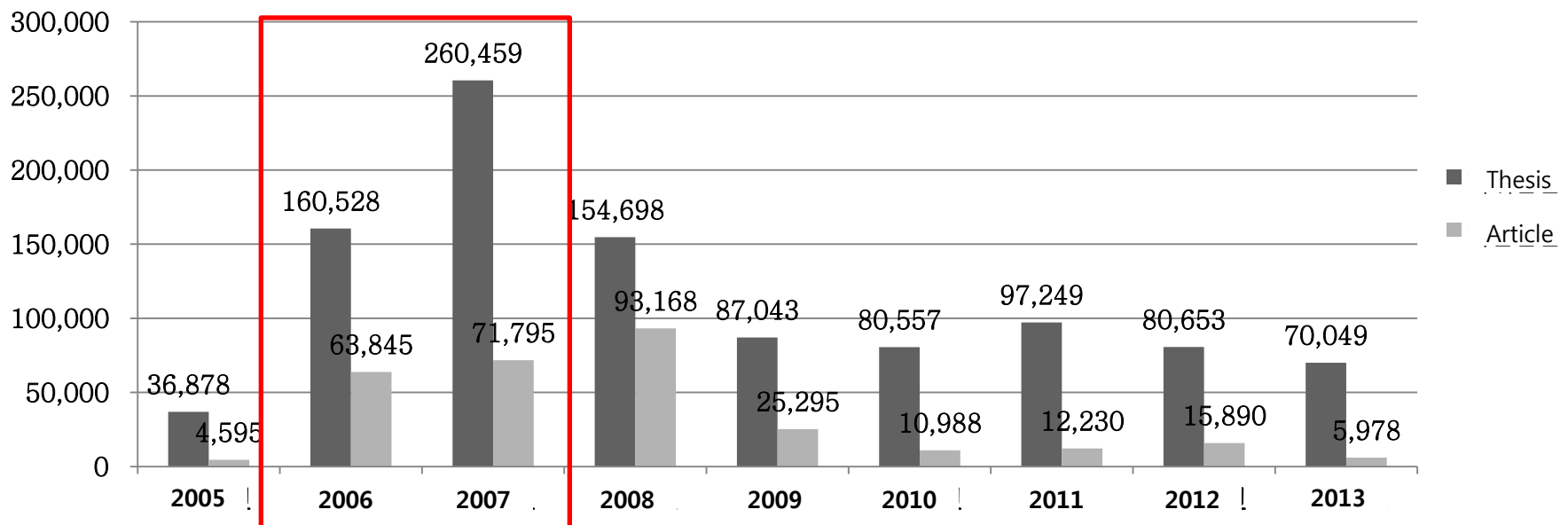– 171 University libraries use dCollection hosting service

• All metadata and fulltext exist in dCollection Central System

• Developed Oracle version of dCollection program for hosting service

# Current situation of dCol.

## dCollection number of Fulltexts

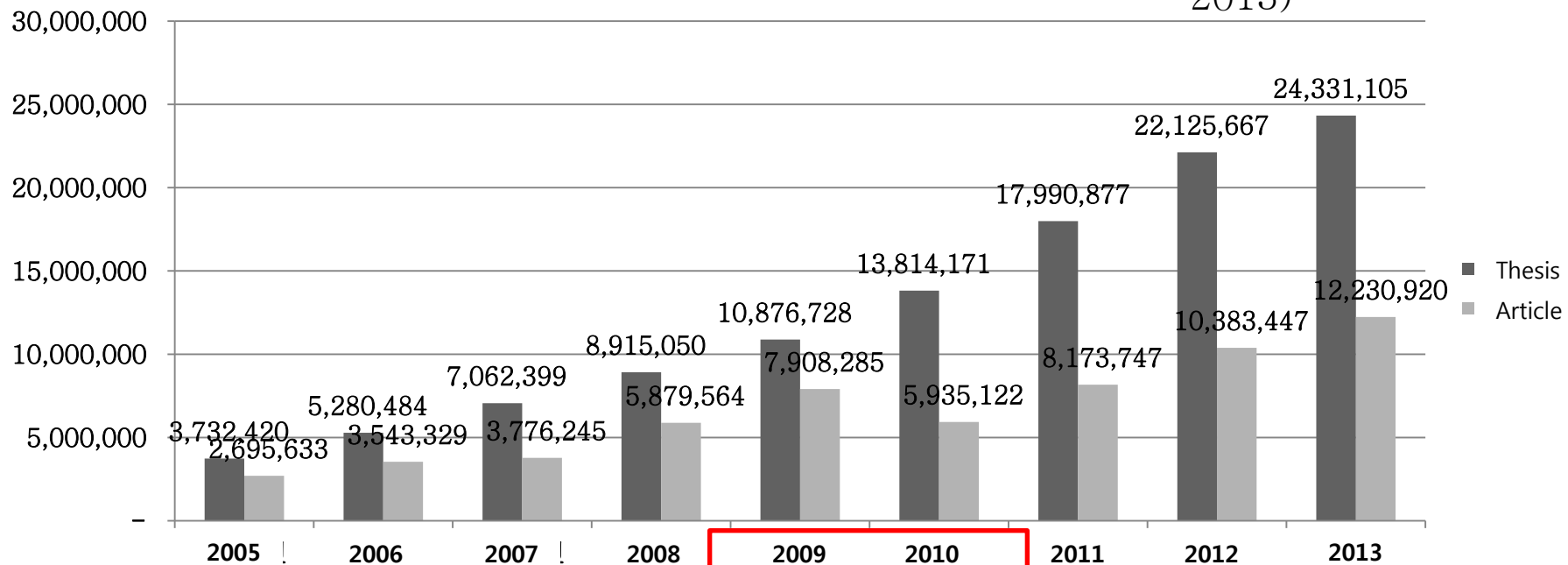– Annual stats.

(as of Dec. 2013)



– A lot of back data uploaded from 2006 through 2007

– In 2007 the number of dCollection members was sharply increased

# Current situation of dCol.

## dCollection Usage

– Annual stats.

(as of Dec. 2013)



– Journal publishers newly added and revising RISS service page in 2009

– In 2010 KERIS started to give metadata to NAVER which is the most popular portal service in Korea

# Current situation of dCol.

## Fulltext of thesis and dissertations

– Top 10 unversty libraries

(as of Nov. 2013)

| Ranking | Univ. | fulltext | CCL/Ratio(%) |
|---|---|---|---|
| 1 | Seoul National Univ. | 49,079 | 3,699(7.54) |
| 2 | Pusan Natioanl Univ. | 39,957 | 7,195(18.01) |
| 3 | Ewha Womans Univ. | 38,472 | 8,523(22.15) |
| 4 | Hanyang Univ. | 37,739 | 12,302(32.6) |
| 5 | Kyunghee Univ. | 36,720 | 9,067(24.69) |
| 6 | Chungang Univ. | 35,207 | 31,367(89.09) |
| 7 | Yonsei Univ. | 34,566 | 4,436(12.83) |
| 8 | Korea Univ. | 34,282 | 7,623(22.24) |
| 9 | Chonnam National Univ. | 31,445 | 5,800(18.44) |
| 10 | Chungnam National Univ. | 28,696 | 6,739(23.48) |

Source : 2013 White paper on ICT in education in Korea, KERIS

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# Current situation of dCol.

## Usage of Fulltext of thesis and dissertations
- Top 10 unversty libraries

(as of Nov. 2013)

| Ranking | Univ. | Download |
|---------|-------|----------|
| 1 | Ewha Womans Univ. | 1,369,720 |
| 2 | Koera Univ. | 1,048,402 |
| 3 | Chungang Univ. | 1,006,749 |
| 4 | Yonsei Univ. | 792,841 |
| 5 | Hanyang Univ. | 687,205 |
| 6 | Kyunghee Univ. | 665,727 |
| 7 | Dankook Univ. | 625,414 |
| 8 | Sungkyunkwan Univ. | 596,746 |
| 9 | Sookmyung Women's Univ. | 583,233 |
| 10 | Seoul National Univ. | 562,481 |

Source : 2013 White paper on ICT in education in Korea, KERIS

# Current situation of dCol.

## The number of Fulltext of Journal articles

– Top 10 unversty libraries

(as of Nov. 2013)

| Ranking | Univ. | fulltext | Download |
|---------|-------|----------|----------|
| 1 | Seoul National Univ. | 26,056 | 108,784② |
| 2 | Yonsei Univ. | 19,422 | 73,201③ |
| 3 | Ewha Womans Univ. | 18,422 | 140,921① |
| 4 | Korea Univ. | 15,659 | 52,147④ |
| 5 | Kyungpook National Univ. | 15,454 | 37,283⑦ |
| 6 | Chungnam National Univ. | 15,135 | 35,847⑧ |
| 7 | Hankuk Univ. of Foreign Studies | 13,884 | 50,248⑤ |
| 8 | Yeungnam Univ. | 13,731 | 22,586⑨ |
| 9 | Kyunghee Univ. | 13,369 | 44,635⑥ |
| 10 | Chonbuk National Univ. | 12,963 | 13,591⑩ |

Source : 2013 White paper on ICT in education in Korea, KERIS

# System Configuration of dCol.
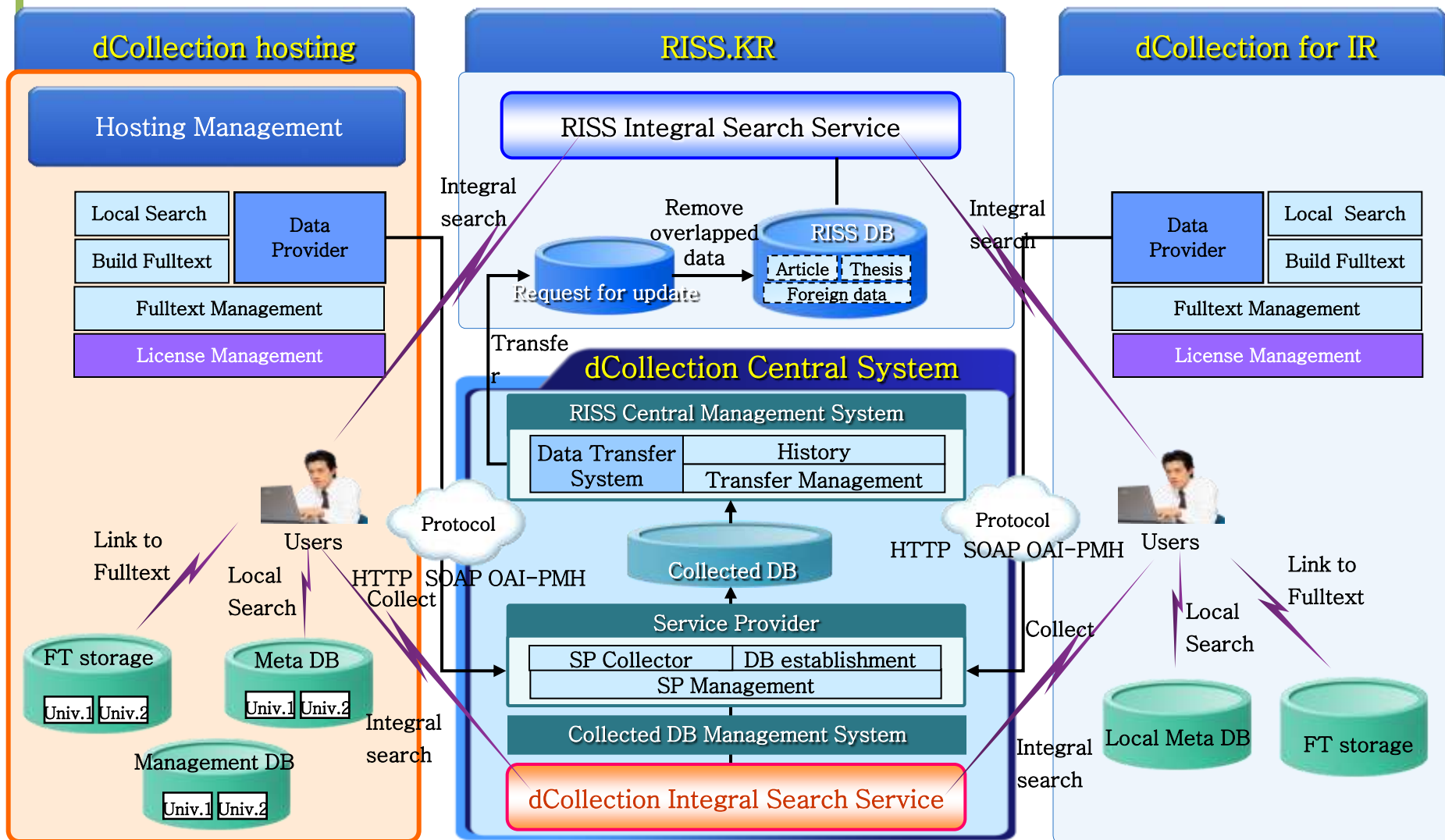
# Functions of dCollection

## Provide Fulltext URL of thesis & dissertations and Link to Fulltext

> ➢ Provide linking URL to fulltext of thesis & dissertations which Univ. libraries have
> ➢ Display, print and download fulltext

## Build integral metadata DB of thesis & Dissertations

> ➢ Prepare for updated metadata
> ➢ Collect updated metadata periodically

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# Functions of dCollection

## Managing Integral metadata DB of thesis & dissertations

> ➢ Review collected metadata of thesis & dissertations
> ➢ Revise metadata of thesis & dissertations

## Uploading and managing journal articles

> ➢ librarians upload metadata of journal articles
> ➢ They search, revise and remove metadata(including vol. issues of journal)
> ➢ Input, revise and remove metadata, abstract and table of contents
> ➢ Manage matching information between metadata and fulltext

# Functions of dCollection

## Convert metadata of backfiles

> ➢ Convert metadata of backfiles of scholarly resources
> ➢ Tansfer the converted metadata to dCollection Central System

## Build journal article fulltext

> ➢ Upload journal article fulltext
> ➢ Convert collected fulltext to PDF image for service
> ➢ Manage matching information between metadata and fulltext

# Functions of dCollection
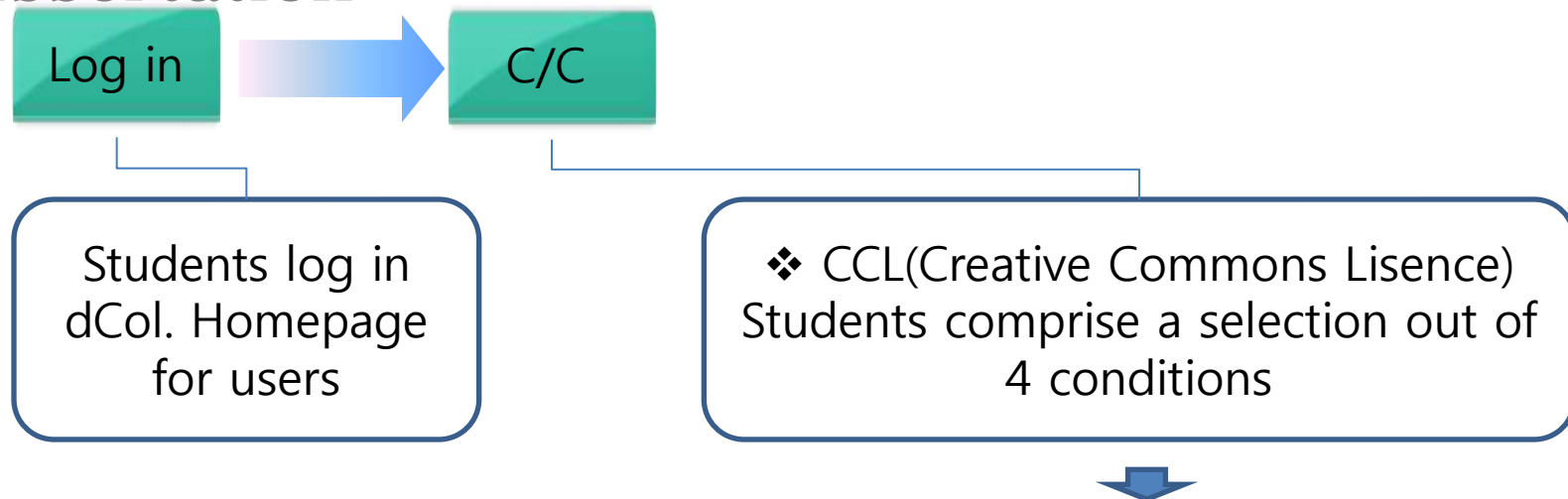
## Manage statistics

- ➢ Statistics of the number of collected fulltexts
- ➢ Statistics of usage(fulltext download)
- ➢ Information of dCollection members
- ➢ Information of setup and authorization

## Submission of thesis and dissertations

- ➢ Fill in metadata, abstract and table of contents
- ➢ Upload fulltext
- ➢ Converting fulltext to PDF image file

# Functions of dCollection

Process of submission of thesis and dissertation

| Log in | → | C/C |

**Students log in dCol. Homepage for users**

❖ **CCL(Creative Commons Lisence)**
**Students comprise a selection out of 4 conditions**

| Icon | Right | Description |
|------|-------|-------------|
| 🛈 | Attribution (BY) | Licensees may copy, distribute, display and perform the work and make derivative works based on it only if they give the author or licensor the credits in the manner specified by these. |
| ↻ | Share-alike (SA) | Licensees may distribute derivative works only under a license identical to the license that governs the original work. (See also copyleft.) |
| 🄎 | Non-commercial (NC) | Licensees may copy, distribute, display, and perform the work and make derivative works based on it only for noncommercial purposes. |
| ⊜ | No Derivative Works (ND) | Licensees may copy, distribute, display and perform only verbatim copies of the work, not derivative works based on it. |

Source : http://en.wikipedia.org/wiki/Creative_Commons_license

# Functions of dCollection

Process of submission of thesis and dissertation

| Log in | → | C/C | → | Fill in Meta |

❖ 20 items ( Mandatory 9 items, recommendation 11 items)
❖ Students must fill in 9 items of metadata items

▼

▪ SOMS (Scholarly Object Metadata Set)
• Metadata standard
• Designed by expanding DC(Dublin Core)

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# SOMS(Meta standard of dCol.)

| No. | Element(In Korean) | Elements(Eng) | Options | Remarks |
|---|---|---|---|---|
| 1 | 제목 | title | Mandatory | Title |
| 2 | 제목(부제목) | subTitle | Recommend | Sub title |
| 3 | 제목(대등) | alternative | Recommend | Alternative title |
| 4 | 제목(제2언어) | translated | Recommend | Title in second language |
| 5 | 저자명 | creator | Mandatory | Author name |
| 6 | 저자 (제2언어) | otherName | Recommend | Author name in second language |
| 7 | 저자의 소속 | affiliation | Recommend | Organization that belongs to author |
| 8 | 저자 이메일 | whoIs | Recommend | Author's email address and homepage |
| 9 | 주제어(키워드) | subject | Recommend | keyword |
| 10 | 초록/요약 | Abstract | Mandatory | abstract (summary) |
| 11 | 목차 | tableOfContents | Recommend | Table of contents |
| 12 | 발행기관 | publisher | Mandatory | Publisher's name |
| 13 | 지도교수 | Advisor | Recommend | Professor who advise |
| 14 | 발행년 | Issued | Mandatory | Issued year |
| 15 | 학위수여년월 | Awarded | Mandatory | Month when degree was awarded |
| 16 | 학위명 | thesisDegree | Mandatory | Awarded degree(Master or Doctoral) |
| 17 | 학과 | major | Mandatory | Major |
| 18 | 세부전공 | specialty | Recommend | Specialty |
| 19 | 페이지 | page | Recommend | Total number of pages |
| 20 | 본문언어 | language | Mandatory | First language in which thesis & Dissertation was written |

# Functions of dCollection

Process of submission of thesis and dissertation

Log in → C/C → Fill in Meta → Agree w copyright

❖ Students can choose agreement of opening their dissertations to the public

❖ or they can choose disagreement of opening their dissertations to the public

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# Functions of dCollection

Process of submission of thesis and dissertation

| Log in | → | C/C | → | Fill in Meta | → | Agree w copyright | → | Input table of contents |

❖ Students input table of contents of their dissertations.

➡ The table of contents help users to jump to pages which they are interested in

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# Functions of dCollection

## Process of submission of thesis and dissertation

Log in → C/C → Fill in Meta → Agree w copyright → Input table of contents → Upload Fulltext

❖ Students upload their dissertations onto dCol. system

➡ Users can search dissertations at RISS and link to fulltexts which are in dCol. system

# Functions of dCollection

Process of submission of thesis and dissertation

| Log in | → | C/C | → | Fill in Meta | → | Agree w copyright | → | Input table of contents |

| Submission state | ← | Upload Fulltext |
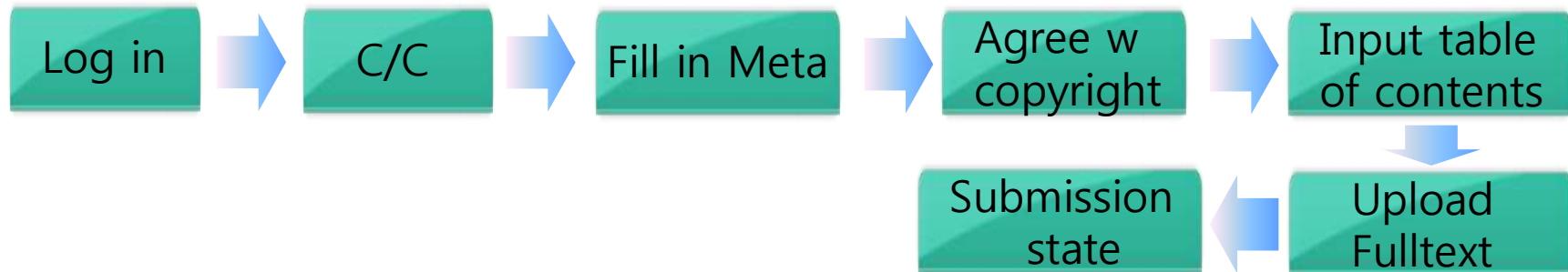
❖ Students print confirmation form of submitting their dissertations and agreement of opening them to the pulic

❖ After librarians confirm submission of dissertations, the dissertations can go to next step

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# Functions of dCollection

Process of submission of thesis and dissertation

Log in → C/C → Fill in Meta → Agree w copyright → Input table of contents

Convert word to PDF ← Submission state ← Upload Fulltext
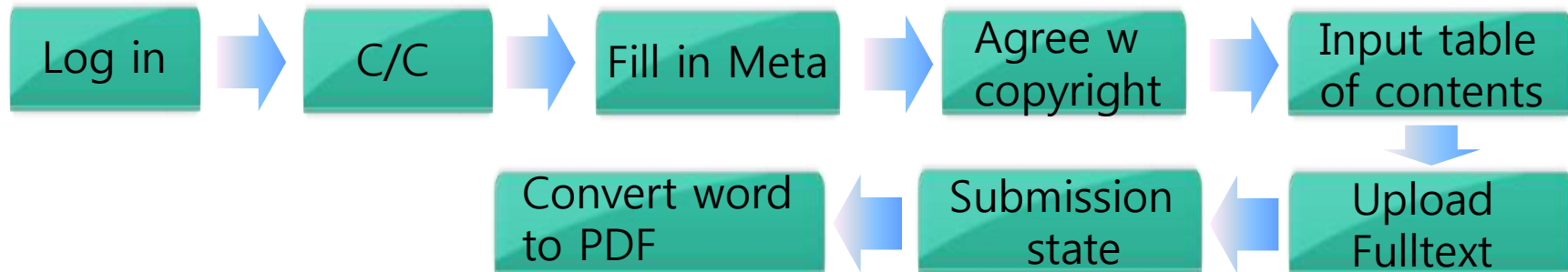
❖ Librarians convert word to PDF
❖ Librarians can convert many dissertations to PDF all at once by using PDF converting software

# Functions of dCollection

Process of submission of thesis and dissertation

| Log in | → | C/C | → | Fill in Meta | → | Agree w copyright | → | Input table of contents |
|---|---|---|---|---|---|---|---|---|

| Check for converting error | ← | Convert word to PDF | ← | Submission state | ← | Upload fulltext |
|---|---|---|---|---|---|---|
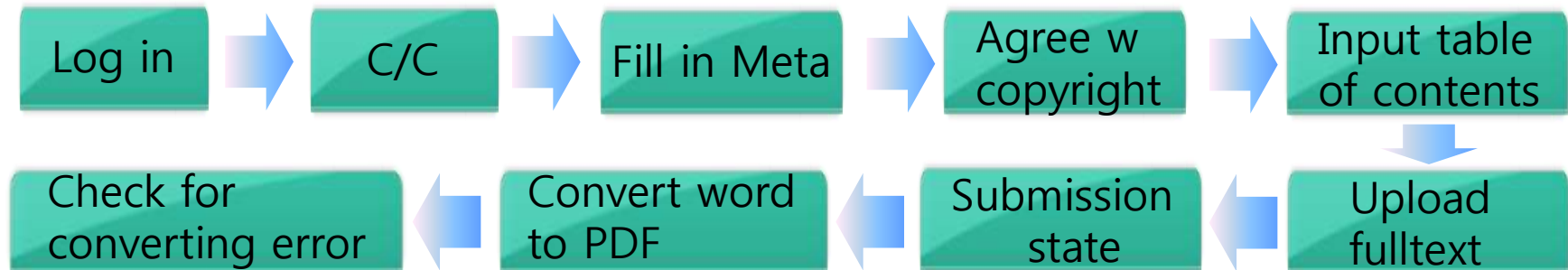
❖ Librarians check error of converted PDF file
❖ If converting failed, Librarians can convert again

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# Functions of dCollection

## Process of submission of thesis and dissertation

Log in → C/C → Fill in Meta → Agree w copyright → Input table of contents

Check for converting error ← Convert word to PDF ← Submission state ← Upload fulltext

Transter Meta to
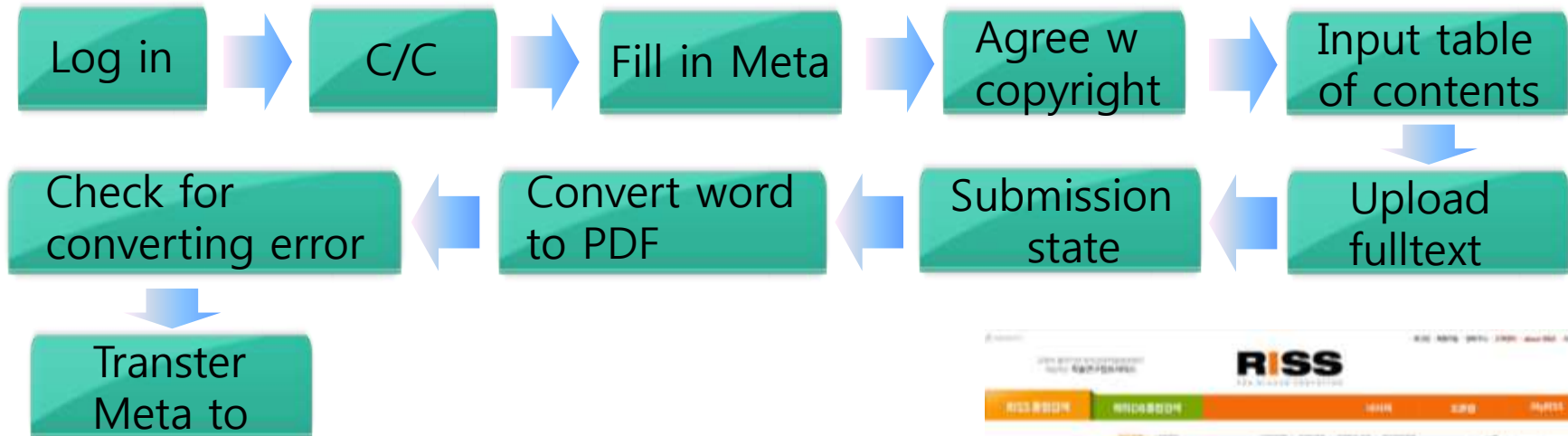
❖ Metadata is transferred to dCol. Central system.
❖ Users can search the metadata at RISS

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# Functions of dCollection

Process of submission of thesis and dissertation

| Log in | → | C/C | → | Fill in Meta | → | Agree w copyright | → | Input table of contents |
|---|---|---|---|---|---|---|---|---|

| Check for converting error | ← | Convert word to PDF | ← | Submission state | ← | Upload fulltext |
|---|---|---|---|---|---|---|

| Transter Meta to | → | Open API |
|---|---|---|



- ❖ Open API is offered at RISS homepage
- ❖ Other institutions can search thesis & dissertations of RISS and view search result at their own service homepage by using RISS open API

# Digital Right Management

(Users)

(administrator) ①

Setup

Store license info
Generate license PDF page

③ View license

Search ←————— License viewer ← License
Setup interface

④ View fulltext

Packaging DRM on real time

PDF with DRM
(include license page)

License
Management

License engine

② Register license

(Students)

View license info.

PDF w license : License page is merged to fulltext

PDF w DRM : PDF with license is applied DRM to. Users view
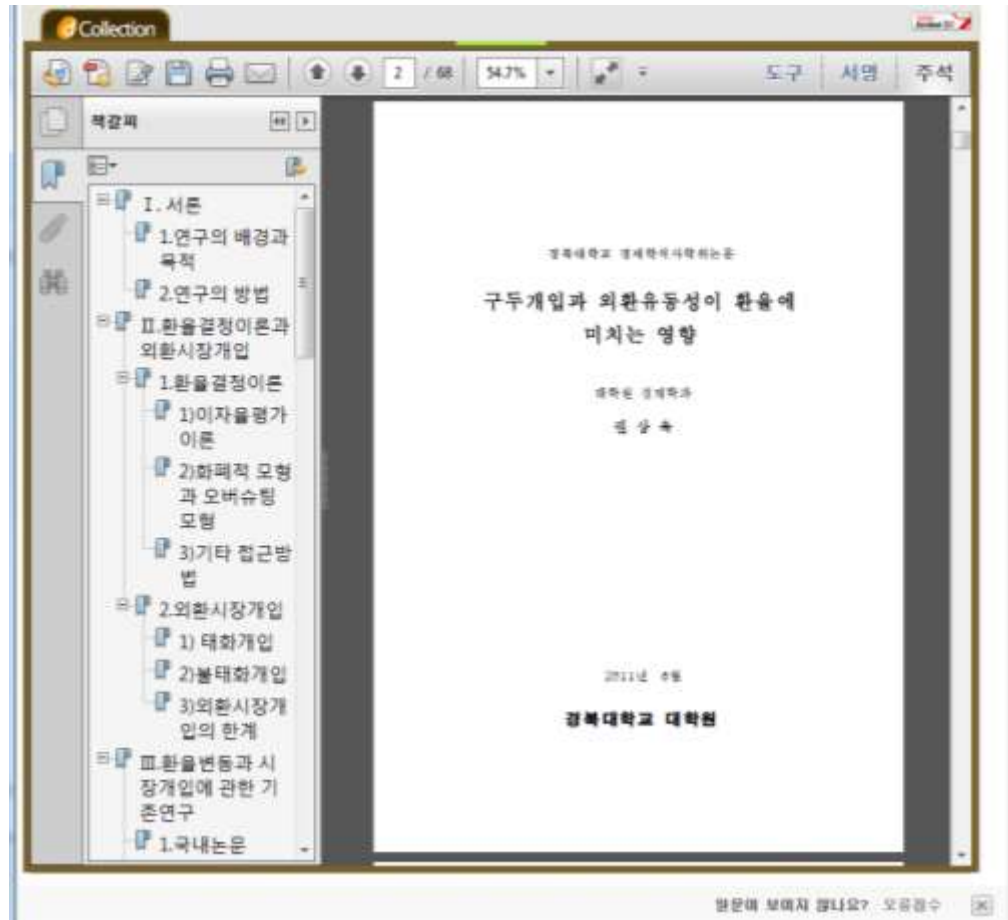PDF with license and DRM

License
DB

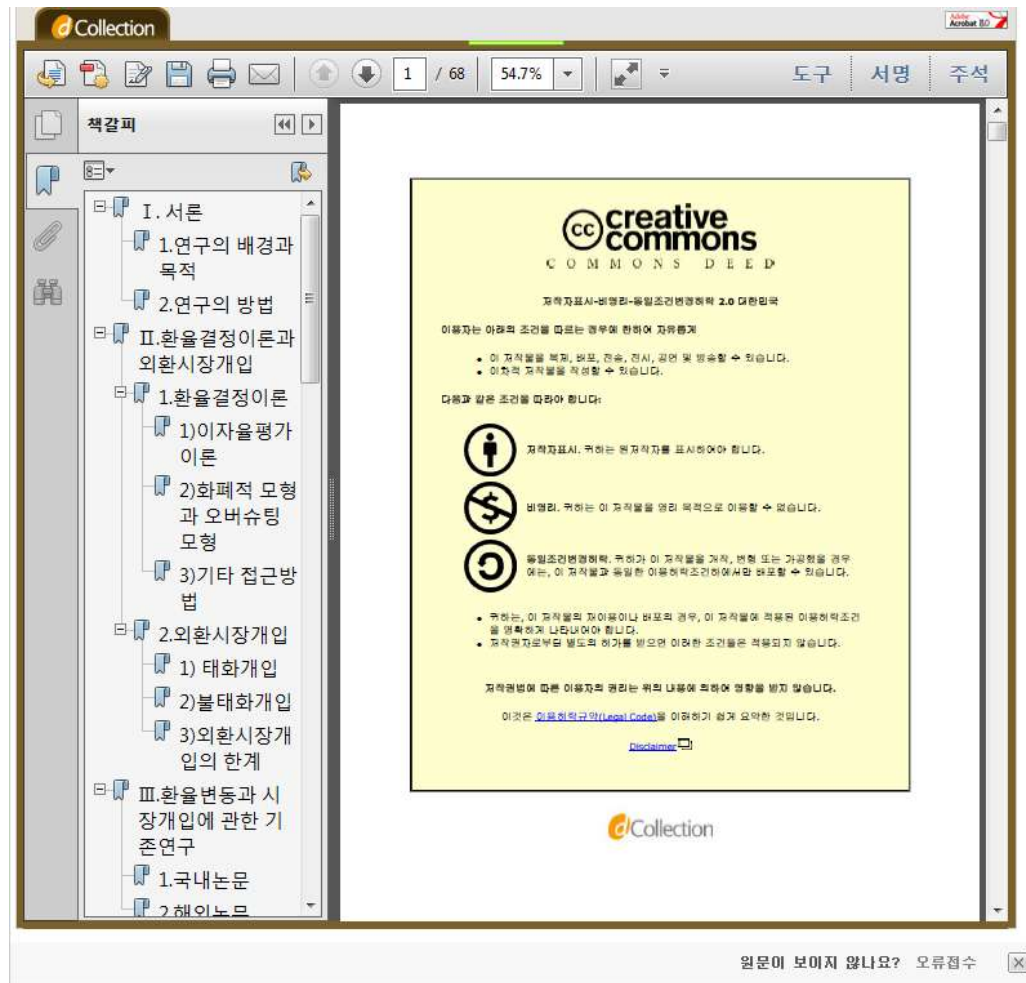dCol. DB server

Select setting at setup

# Digital Right Management

PDF before applying license and DRM

# Digital Right Management

## PDF after applying license and DRM

# Digital Right Management

## DRM and policy of Univ. library

– librarians can select DRM options according to policy

– DRM options are Display, Print and Save.

– librarians can setup saving conditions of fulltext

– The fulltext that users can not view is delivered via Inter library loan

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THANK YOU