学术环境演变中的高校教学研究所需文献资源初探

——以华中科技大学图书馆为例

Discussion on literature resources for teaching and research requirement in changing academic environment:

a case study of Huazhong University of Science and Technology library

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主题背景 Theme background

- 始于20世纪90年代的教育产业化与高校合并潮，使国内“学术”不仅仅限于“求知”，学术带有明确的“实用”目的，这是一个浮躁期。
- Industrialization on education and combination of colleges and universities since 1990s cause the problem that ‘academic’ is not restricted to ‘acquisition of knowledge’ .This is an impetuous period when academicis out of ‘practical’ purpose.

主题背景 Theme background

- 自国家教育部2004年6月下发《高等学校哲学社会科学研究学术规范》，中国学术规范运动十余年来，无论是高校教学研究环境的改变，还是教研人员内心的被冲击，效果显现。
- 学术尊严被认同，为“求知”而从事学术的伦理——部分回归，**尊重与诚信**逐渐根植于高校学术土壤，**教师**初步形成**梯队**，文献资源的多种载体以其广度与深度运用于各类学科，**资源聚合**的速度加快，形态呈多样化趋势。如何理解教学研究所需资源的变与不变，成为图书馆资源建设的现实课题。

2. 教学研究中所需文献资源的变与不变

New and existing types of information resources in academic work

- 变化建立在不变的基础上，学科文献的核：依然是各类信息资源，如国内外的图书、期刊、论文、会议文献等；不断改变的是教研与资源相互作用下的**组合形态和利用方式**。
- Core discipline literature: domestic and foreign books, journals, thesis, conference papers
- **New:** combination form and utility pattern of interaction between information resources and teaching.

2. 教学研究中所需文献资源的变与不变

New and existing types of information resources in academic work

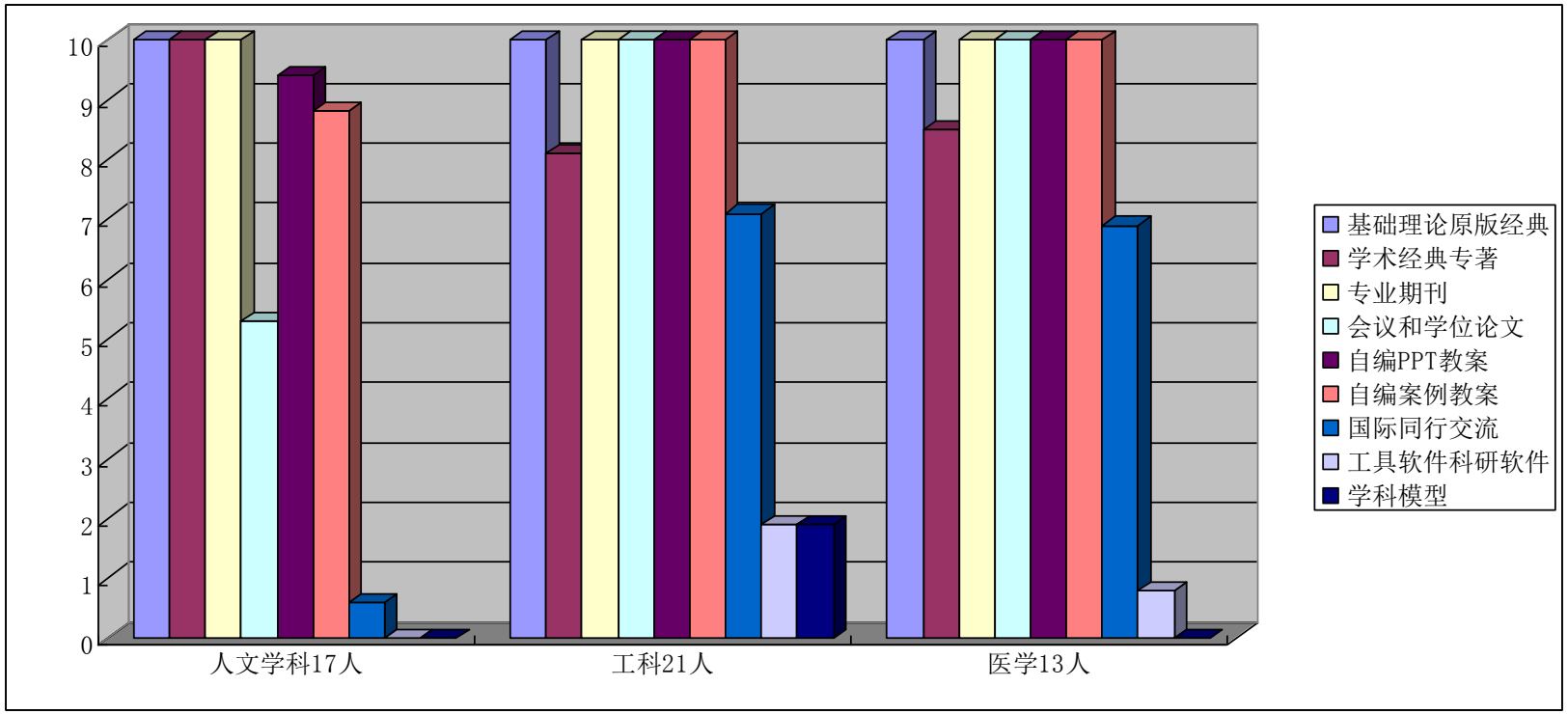
- 通过对**人文学科**（文史哲法学社会学教育学）、**工科**（机械电信土木材料生科数理化）和**医学**（公卫基础医学药学临床）的**中青年教师、学者**（30→45岁）的调研（开放性问题→访谈），触摸到文献资源于教学、科研中的部分状态。
- Survey(including open questions and interviews) on young and mid-age teachers, scholars(30-40yrs old) from Arts and humanities discipline(school of literary, history, philosophy, law, social science and education science),engineering and science discipline(mechanical science, communication science and technology, civil engineering, material science, Life Sciences, mathematics, Physics and Chemistry),medical science discipline(public health, Basic & Clinical Medicine, clinical medicine).

教学科研所用主要资源类型
resources for teaching and research requirement

	人文学科17（人） Arts and humanities	工科21（人） Engineering science	医学13（人） Medical sicence
基础理论原版经典 Foreign original textbooks of fundamental theories	17	21	13
学术经典专著 Classical scholarly monographs	17	17	11
专业期刊 scholarly journals	15	21	13
会议和学位论文 Conference papers& dissertation	9	21	13
自编PPT教案 **Self-presentations**	16	21	13
自编案例教案 **Self-complied case study resources**	15	21	13
国际同行交流 global peer communication	1	15	9
工具软件科研软件 Tool and research software	0	4	1
学科模型 Discipline models	0	4	1

教学科研所用主要资源类型

resources for teaching and research requirement



纸质与电子 （利用比例）

Print and digital （ Use ratio）

	利用比 Use ratio	人文学科17人 Arts and humanities	工科21人 Engineering science	医学13人 Medical science
基础理论原版经典 Foreign original textbooks of fundamental theories	纸质与电子 Print And digital	**8**:2	2:8	4:6
学术经典专著 Classical scholarly monographs		**8**:2	2:8	3:7
专业期刊 scholarly journals		**6**:4	0:10	1:9
会议和学位论文 Conference papers & dissertation		3:7	0:10	0:10

2.1 基础理论原版经典教材和专著

Foreign original textbooks on basic theories and academic classical monographs

- 在网络环境下，充溢着各类电子资源，但无论人文、工科和医学，更加重视学科基础原著 。
- All kinds of E-resources piled up in digital space, but arts and humanities, engineering science and medical science all agree to emphasis on disciplinary basic theory textbooks and classics monographs.

2.1 基础理论原版经典教材和专著

Foreign original textbooks on basic theories and academic classical monographs

原版经典教材对于教学科研重要作用：

- 阅读经典有利于熟悉英文科技论文写作结构、写作方法、句型、专业词汇等，仅仅阅读国际会议、期刊的论文，缺乏学术积累，影响学术质量。
- 参加国际会议，难有能做好PPT讲稿，如一个公式，会写出来，用英文表达出来，就卡壳了。原版经典教材多内附光盘，包含讲解，这非常宝贵，因为专业性的PPT演讲和外文一般语言练习有差异。原版基础教材的阅读思考训练，有助于此。

2.2 学科细分领域专题资源

Subdiscipline project resources

- 学科细分，如机械工程：机械电子、工业设计、仪器技术、流体动力等；工业设计：产品设计、环境设计、传播设计、设计管理，包含造型设计、机械设计、电路设计、UI设计、平面设计等等
- Subdiscipline, such as mechanical engineering: industrial design, instrument technology, Fluid Power; Industrial design: product design, environment design, communication design, design management, including modeling design, mechanical design, circuit design, UI design, graphic design, etc.

2.2.1运用于本科教学的学科细分专题资源
Subdiscipline resources applied to undergrads education

- 由中外文纸质和电子图书、期刊、论文及音频、视频等多种媒体资源自由（不仅含有学科基础理论，更多的是教学思想与理念、教师对学科的个性化理解）组成的PPT讲稿。
- Combined with Chinese and foreign language publishing and E-books, scholarly journals, thesis, audio and video multimedia resources (*include subject fundamentals and more about teaching thought and teachers' individual understanding*) presentations

2.2.1运用于本科教学的学科细分专题资源
Subdiscipline resources applied to undergrads education

- 学科专题案例资源（来源：集成化和个性化，目的：理解学科知识点及学科理论在实践中的体现和运用）。
- project case study recourses by field (source: integrated, personalized， purpose: understand relationships of subject key concepts and theories and practice)

2.2.2运用于科研的最新细分学科文献资源

latest scholarly resources applied in scientific research

- 利用频率**高→低**：电子期刊、会议论文、学位论文、图书、报纸，外文利用先于且多于中文文献，文摘数据库检索后查询全文阅读 。
- Using frequency from high to low: E-journals, conference papers, dissertations, books, newspapers. First search English resources then Chinese resources, and English resources are used more than Chinese resources. First search in Abstract databases than read full-text papers.

2.3 学科领域内国际知名专家参与的学术会议

Conferences attended by leading experts in every discipline

- 会议音频、视频、文稿及论文 。
- audio, video materials, manuscripts and papers .

2.4 学科工具软件资源
Tool software by field

- 基础常用软件：画图软件、模拟计算软件等、科研领域的科学软件（如SPSS软件等）。
- Commonly used software: drawing software, simulating calculation software, etc. Scientific software for research: SPSS, etc.

2.5 教研中常用的学科实物模型与电子模型

Physical and digital models in teaching and research

- 如物理基础模型：电磁感应、太阳能电池、光电器件模型等，化学基础模型：分子模型、卡诺循环模型等 。
- Such as, physical basic models: electromagnetic induction, solar battery, optoelectronic device model. Chemical basic models: molecular model, Carnot cycle model, etc.

3. 文献资源建设与教学科研之矛盾和差距

Contradictions and the gap of information resources construction and teaching and research

- 图书馆文献资源建设和教学科研无疑都是服务于高校这个大系统中的众多子系统之一，相互作用、共同生存着，每个子系统的变化都将产生波纹式效应，影响到更大或更小的其他系统，在每个与之相关的系统中引起变化。
- Both information resources construction work in academic library and teaching and research activities are fundamental parts of the serve to colleges or universities' functioning.

3. 文献资源建设与教学科研之矛盾和差距

Contradictions and the gap of information resources construction and teaching and research

教学研究系统 Teaching and research system		资源建设系统 Resource construction system
教研环境演变 Research environment evolution	←	文献内容增长 Increase of literature amounts
教师梯队形成 Composition of teaching team	→	文献载体增多 Increase of literature medium forms
教研方式改变 Change of teaching research mode	←	文献聚合形态 Combination of literature mediums

3. 文献资源建设与教学科研之矛盾和差距

Contradictions and the gap of information resources construction and teaching and research

3.1 资金有限性与配置合理性
Library funding limit and rational allocation

- 教学与科研资源的配置平衡点，多因素→资金压力：资金来源、配置理念、配置方式与手段等 。
- Balanced allocation between teaching needs and funding limit, multi-factors → fund pressure: fund source, allocation strategy and allocation method
- 例：外文期刊全文下载权限与中文10余学科基础在线图书；医学外文原版纸质图书采选。
- Eg. Foreign periodicals' full text download right and more than 10 disciplinary fundamental online books; Foreign original medical print books acquisition.

3.2 教学资源与科研资源的组合形态和相互转化方式 Combination forms reciprocal transformation of teaching resources and research resources

- 科研是灵魂、教学是基础，相辅相成；

  科研→教学：思考方式、严谨治学作风，

  教学→科研：基础积累、拓宽学科视野 。

- Research is soul, teaching is fundamental, the two are complementary relations;

  Research→ Teaching: ways of thinking, rigorous scholarship,

  Teaching→ Research: establish a foundation of basic knowledge for disciplines, broaden horizon and vision of the disciplines.

3.3 资源揭示的深度与方式
Depth and methods of resource description

- 学科细分下的资源专题推送；电子资源更新内容的学科汇集推送。
- Selective resources push service by using discipline segmentation method;

  E-resources updates push service by disciplines.

3.4 文献资源系统趋于稳定的特性
The feature of system's tendency toward stability

- 资源建设系统—收到—教研系统—反馈：内部平衡被干扰或破坏→准确识别→理解反馈→积极回应；
- 近5年我馆：自动调节与拒绝调节；调节方式：显见的方式（能发挥临时性作用，诱惑）→资源系统长期慢性痼疾→系统功能障碍与紊乱，持久功效的方法常常短期效果不显见→实现资源建设系统目标。
- Resource Construction system---Receive---Teaching research system---Feedback: Disturbed and damaged Internal balance→ Precise recognition→ Comprehension and Feedback→ Positive response;
- In the past 5years our library: self-adjustment and refusing adjustment; Adjusting method: apparent method (Temporary effect, temptation) →Resource system's 'long-term chronic disease' → 'System dysfunciton', 'long-acting' method has little impact on short-term effect →Achieve resource construction system goal.

4. 文献资源链的组成与建设初探

Primary study on construction of literature resource chain

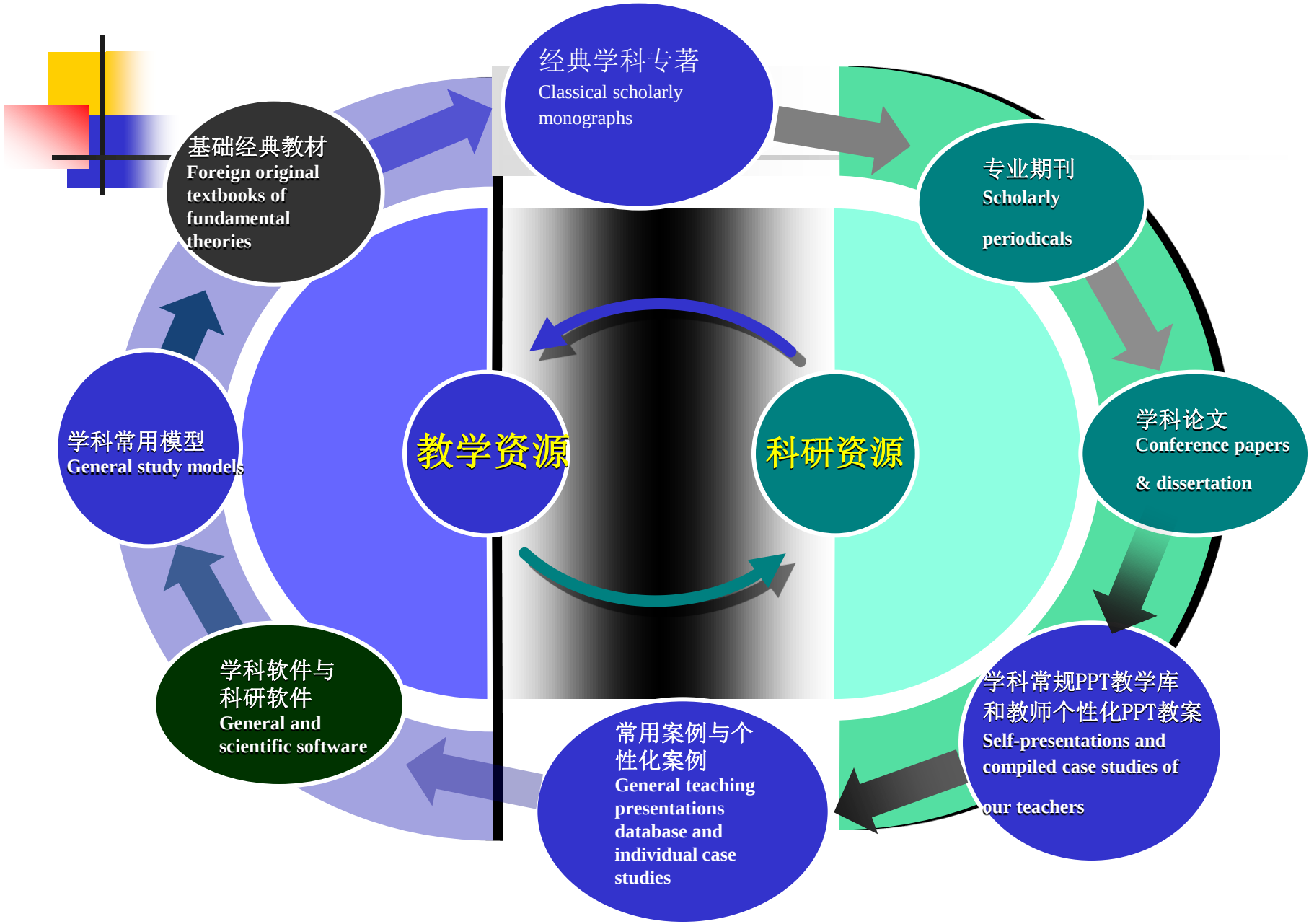
- 文献资源的**点**：图书、期刊、报纸、论文、教研工具等；
- Element of literature resource: Books, periodicals, dissertation, research tools, etc;
- 文献资源的**面**：多语种、学科基础理论、学术专著（新兴学科、交叉学科及学科细分的新领域等）、多载体、多媒体、软件及模型等。
- Net of literature resource: Multilingual and multidisciplinary fundamental theories, academic monographs (New disciplines, interdisciplines and new field under discipline subdivision), multi-mediums, multimedia, software and models, etc.

4.1调整学科文献资源的聚合理念
Adjust aggregation strategy of discipline resources

- 文献资源链→教学资源与科研资源为主线，细分下的学科资源为分支，形成多类型的专业性、系统性、连续性的动态的文献资源**点**与**面**的组合。
- Literature resource chain→ teaching materials and research resources as the trunk and resource under disciplinary segmentation as the branch, compose the combination of professional, systematic, continuous literature resource elements and net.

4.1调整学科文献资源的聚合理念
Adjust aggregation strategy of discipline resources

- 基础理论原版经典教材↔↔经典学科专著↔↔专业期刊↔↔学科论文↔↔学科常规PPT教学库和教师个性化PPT教案↔↔学科常规案例教学库和教师个性化案例教案↔↔学科常用软件与科研领域的科学软件↔↔学科常用模型（学科相异，文献资源链有不同的细分组合内容）。
- English original fundamental theories textbooks ↔↔ Classical scholarly monographs ↔↔ Scholarly periodicals ↔↔ General teaching presentations database and individual case studies ↔↔ general and scientific software for study ↔↔ General study models (Due to the variety of disciplines, literature resource chains operate different subdivision and combination strategies).


经典学科专著
Classical scholarly monographs
基础经典教材
Foreign original textbooks of fundamental theories
专业期刊
Scholarly periodicals
学科常用模型
General study models
教学资源
科研资源
学科论文
Conference papers & dissertation
学科软件与科研软件
General and scientific software
常用案例与个性化案例
General teaching presentations database and individual case studies
学科常规PPT教学库和教师个性化PPT教案
Self-presentations and compiled case studies of our teachers

4.2 馆藏补缺主要途径

Collections complement means

- 外文原版文献：馆配商→协同分析国内外同类型高校图书馆相关学科馆藏；出版社→回溯该社学科经典著作；院系学科教授→自选书目。
- Foreign original literature: library book suppliers→ Collaborative comparison of our discipline collection with other similar Chinese and foreign universities libraries' collection; Presses→ Retrospective acquisition of their scholarly monographs; Professors → Select bibliography.

4.2 馆藏补缺主要途径
Collections complement means

- 电子期刊与论文：利用现有定量统计分析工具，重复率、拒访率与下载率。
- E-Journals and dissertations: Utilize current quantitative statistical analysis tool. Repetition rate、Deny access rate、Download rate.

4.2 馆藏补缺主要途径
Collections complement means

- 常规PPT和案例教学库：试用→评估→馆藏。
- General presentations and case study database: Trial → Evaluation → Collection
- 教师个性化PPI与案例教案：制定版权和运作方案（争取学校发文），学科组院系搜集（一线教师、课题组），数字资源开发部整理建库。
- Self-presentations and compiled case studies of our teachers: Realize copyright protection and develop operation program (Post articles in the university), Subject liaison team collect (Front line teachers, research groups), E-resources development department collect and build teachers' self-presentations database.

4.2 馆藏补缺主要途径
Collections complement means

- 软件与模型？（来源？图书馆收藏原则？）
- Software and models （ Source？ Library Selection Criteria ？）

5. 疑问与思考
Discussion

- 学科细分的合理性与实用性（JCR、ESI、教育部一级学科等）（细分原则同时利于：教研文献获取效率与资源建设效率）。
- Appropriateness (In the favor of increasing: Efficiency of access teaching and research resources, efficiency of resource construction) of subdivisions of the disciplines (JCR,ESI, First-level discipline with the approval of the Ministry of Education of China).

5. 疑问与思考
Discussion

- 教师个性化PPT与案例使用中的“版权”问题。
- ‘Copyright’ issues in the self-presentations compiled by our teachers and cases used in case study materials.
- 学科领域内知名专家最新的学术思考和文献（会议论文或文稿、音频视频）获取途径。
- Access of the ideas in forefront research field of leading experts in each discipline (Conference papers or presentations, audio video materials).

5. 疑问与思考
Discussion

- 软件与模型（图书馆是否有收藏与提供的责任？）
- Software and models
  （ Are academic libraries obligated to store and supply trai ning related software and models? ）

参考文献
Reference

- 《冰山的一角：掌控影响组织成败的隐性力量》，[美]大卫.哈彻斯 著，包蔚然、王阅春 译，东方出版社，2004.1
- David Hutchens. (2000). The Tip of the Iceberg: Managing the Hidden Forces That Can Make or Break Your Organization.

谢谢各位

Thank you

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章文浪

2015年5月4日