

Open Knowledge Resources for Higher Education:

research publications, learning materials,
academic software

Thomas Pfeffer

„Long ago we outsourced publishing to publishers.
Now we need to take it back.“

J. Robert Cook
Dean of the faculty, Cornell University

Introduction

- Higher Education Research
 - HE institutions and systems
- Use of ICTs + eLearning at universities as related phenomena
- Functions of universities
 - Create, disseminate + store academic knowledge
 - Research, education, archiving

Goals of the presentation

- Open Knowledge Resources as alternative to commercial products
- Knowledge resources as physical representations of academic knowledge
 - scholarly publications
 - learning materials
 - academic software

Academic knowledge resources (1)

private goods

- Assumptions of the “new economy”
 - ICTs industrialise and commodify HE
 - Only the most profitable HEI will survive
- Consequences
 - Commercialisation taken for granted, regarded an obligation
 - Focus on (potential) revenues instead of costs
- Problem
 - HEI/scholars are main producers + main consumers
 - Prices: costs for HEIs and profit for commercial vendors

Academic knowledge resources (2)

public goods

Academic knowledge itself is free

- Open communication essential for quality control
- Exchange reduces development costs

Academic knowledge resources

- Not-for-profit: no compensation for authors and reviewers
- Revenues: research and education, not marketing resources
- Gains for publishing: attention and reputation
- Transaction costs: (re-)production, distribution
- Prices should cover transaction costs only

Scholarly publications (1)

problems

Traditional publications

- From subsidised to commercialised market (since 1960s)
- Oligopoly of commercial publishers
- Inelastic demand
- Rocketing prices
(journals +8.5%, CPI +3.3% p.a.)

Results

- Declining variety of consumption
- Restrictive copyright policies
- Publishers as copyright hoarders

Scholarly publications (2)

ICT-based alternatives

Characteristics

- Online archives ~ online publications
- ICTs reduce transaction costs + rivalry
- Open access shifts costs from consumer to producer

Types of open access repositories

- Self-archives (eScholarship, RePEc)
- Free online journals (EloP, BioMed Central)
- Pre-print servers (ArXiv)
- Digitalisation projects (Google Print, Yahoo OCA)

Learning materials (1)

problems

Traditional textbooks

- Rocketing prices: textbooks +6%, CPI +3% p.a.
- Costs: ~ 900 \$ U.S. (1/4 - 2/3 of tuition)

eLearning materials

- Failures of for-profit projects (e.g. Fathoms)
- No functioning “market” yet, but
- Interest in Open Educational Resources (OECD)

Learning materials (2)

ICT-based alternatives

Characteristics

- eLearning in HE: learning materials required
- New form of scholarly publication (quotations, reviews, sharing, etc.)

Types of open access initiatives

- Single institution (MIT OpenCourseWare)
- Institutional network (Merlot.org)
- Intergovernmental (Commonwealth of Learning)
- Non-profit foundation (Wikibooks)

Academic software (1)

problems

Software as a new form of academic knowledge resource

- De- and pre-scribing academic activities
(e.g. pedagogical models, research methods, etc.)

Commercial software

- “hefty price tag”
- Licence fee per user instead of ownership
- Source code (~ recipe) is kept secret
(no critique, no further development by user)
- Business model restricts academic activities
(e.g. cross-institutional or intercultural collaboration)



Academic software (2)

alternatives

Characteristics

- Open Source code: open for critique and improvement
- Cost containment
(no royalties, only development + maintenance)
- open standards to facilitate exchange

Types open source software initiatives

- State funded collections (CampusSource)
- Institutional consortia (The Sakai Project)
- Grasroot peer production (Moodle)

Conclusions

- Open knowledge resources are an alternative to commercial resources
- Knowledge resources are by-products in a service based economy
- Archiving + publishing merge
- Production and consumption are related tasks of HEI/academics

Policy recommendations

- Pay for services, not for products
- Shift expenditures from consumption to production
- Use existing open knowledge resources
 - Select and refer to open access resources
 - Join collective initiatives and networks
 - Acknowledge and support peer production
- Create open knowledge resources
 - Claim: public status with well defined licences
 - Establish: repositories, services, quality control
 - Defend: against infringement and shortage of funds

Thank you very much!

Thomas Pfeffer

Univ. of Klagenfurt, IFF Higher Education Research

thomas.pfeffer@uni-klu.ac.at

www.iff.ac.at/hofopfeffer

Literature

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