The dynamics of improving access to research papers

Mark Ware

CEPA / Mark Ware Consulting

Commissioned by:
Changes in costs
- Publication/Distribution
- Access Provision
- Transitional Costs

Access
Analysis of change in access

Drivers
- Discussion of drivers
- Steps to be taken by whom to achieve – e.g. creation/enforcement of mandates (Green)

Economic Modelling
Benefits

Results

Costs

Access

BCR
<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
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| GREEN OA            | • Funder mandates: 40–60%  
                      • Institutional mandates: 15–30%  
                      • Variants: “Green 2015” & “Green Zero”                                                                                           |
| DELAYED ACCESS      | • Publisher response for demand for access  
                      • 25% articles available on publisher platform  
                      • Publisher-set embargoes: 12m – 36m                                                                                             |
| GOLD OA             | • Funding coordination & more OA journals  
                      • 40% articles (biomed), 15% (S&T), 5% (AH)  
                      • Variants: higher/lower APC                                                                                                       |
| LICENCE EXTENSION   | • Publisher/govt desire to meet demand  
                      • 75% articles via HEI national licence  
                      • & 55% relevant articles via NHS licence                                                                                         |
| TRANSACTIONAL       | • Publisher/third party response to demand  
                      • Aggregation site (“iPub”) – targeted marketing  
                      • PPV @ $10 (& $5 / $1)                                                                                                            |
UK net annual costs 2011–2023
UK net cost per additional unit of "standardised access"

Increase applicable to HEI/NHS users only

- Green: £22.50
- Delayed: £0.90
- Gold Higher APC: £50.80
- Gold Lower APC: £67.10
- Licence HEI: £67.30
- Licence NHS: £9.50

¹ Increase applicable to HEI/NHS users only
Benefit–cost ratios

Delayed BCR = 113

Transaction BCR is not comparable
## Relative risks of the scenarios

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Scholarly Publishing System Risk</th>
<th>Transition Risk</th>
<th>Risks to Achievement of BCR</th>
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<tr>
<td>Green</td>
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<td>Licence Extension</td>
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Delayed access

- Closest scenario to a zero-cost option
- Low cost per additional access
- High BCR
- Lacks plausibility: insufficient motivation
- Few if any policy levers
- Unlikely to lead to major increase in access
Transactional

- Potentially useful to target access gaps
- Complementary to subscriptions/licences
  - provided cannibalisation avoided
- Unlikely to lead to substantial overall increase in access
- Few if any policy levers
- Open Access would reduce demand
Licence extension

- Cost-effectiveness depends on price ...
- ... but appears less cost-effective than others
- High transition risks:
  - Increased upfront and ongoing costs
  - Difficulty of allocation costs among HEIs
- Unattractive in current fiscal environment
Green Open Access

- Could substantially increase access
- Cost-effective since infrastructure already built
- Low transition/outcome risks
- Risks to system from potential subscription cancellations
- Not self-sustaining
Gold Open Access

• Sustainable business model

• Improved economic efficiency (transparency, lower barrier to entry)

• Potentially high BCR and lower net costs to UK academic institutions
  • provided average APCs are low enough

• Transition/outcome risks: funding “hump”, APC pricing, UK/Global take-up
Summary

• OA scenarios offer most scope for policymakers to increase access cost-effectively

• Expand use of existing repositories (Green) but with caution re. risks to subscriptions

• Gold is preferable provided:
  • average APCs remain below ~£1995
  • UK uptake matches global rates
  • hybrid models do not increase costs
Credits/further information

• Project information & reports:
  • http://www.rin.ac.uk

• Authors
  • CEPA
    • Daniel Hulls
    • Joel Cook
    • David Jones
  • Mark Ware Consulting
    • Mark Ware

• Funders: RIN, JISC, PRC, RLUK, Wellcome Trust