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TRANSFORMING DIGITAL WORLDS



How to Assess Cloud Service Contracts?

A Checklist for Trustworthy Records
in the Cloud

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iTrust (2013-2018)

- **Season 4** of the InterPARES Series
- **Director** : Prof. Dr Luciana Duranti
- **Partnership Grant** from the Social Sciences and Humanities Research Council (Canada)



iTrust (2013-2018)

- 26+ countries
- 270+ researchers
- 35+ Universities
- 20+ Private and Public Archives & National Libraries
- 9+ Transnational Organizations

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Research team

- Researcher & Project Lead
 - Dr Marie Demoulin, Université de Montréal
- Graduate Research Assistants
 - Jessica Bushey, UBC
 - Elissa How, UBC
- Independent Researcher
 - Robert McLelland, Delta Museum & Archives Society (formerly)



Purpose & Research question

- Contract as a tool to build trust in the cloud
- How effectively do cloud service contracts meet the needs of records managers, archivists and information governance professionals?



Framework

- Several legal documents
 - ToS, SLA, Privacy policy, AUP...
- Little standardization of terms
- «Often incomprehensible to the majority of users»
- Wide-ranging exclusions of liability
- Terms may change



Litterature review

- Standards
 - ISO 15489 (2001*) – Records management
 - ISO 14721 (2002) – Preservation of records
 - ISO 14721 (2012) – OAIS
 - ARMA's Recordkeeping Principles (2013)
 - Moreq 2008
- Governance docs & Recommendations
- Case law & related articles



Preliminary findings

- Regardless of jurisdiction, sector or profession, common risks exist:
 - Unauthorized access
 - Privacy breach
 - Loss of control
 - Lack of transparency of service
 - Lack of ability to negotiate service
 - Location ambiguity
 - Contract ambiguity



Series of questions

- Data ownership
- Availability, retrieval and use
- Data storage and preservation
- Data retention and disposition
- Security, confidentiality, privacy
- Data location and cross-border data flow
- End of service; contract termination



Qualitative content analysis

- Cloud Services relevant for RM and archiving purposes
- Boilerplate contracts & binding documents
 - No marketing material
- Jurisdiction
 - Canada – US – Europe



Contracts considered

- Amazon.com (USA)
- Bluelock (USA)
- Dropbox (USA)
- Egnyte (USA)
- GoGrid (USA)
- Google (USA)
- OpenText (USA)
- ProfitBricks (USA)
- Rackspace (USA)
- EduCloud (Canada)
- Pathway Communications (Canada)
- SAP (Belgium – Canada)
- CloudSigma (Switzerland – USA)
- CityNetwork (Sweden)
- GreenQloud (Iceland)



Research Product

- Check-list for record managers and archivists to:
 - gain an understanding of boilerplate cloud contracts
 - verify if potential cloud contracts meet their needs
 - clarify recordkeeping needs to legal and IT departments
 - communicate recordkeeping needs to cloud providers



Checklist for Cloud Service Contracts Intended Audience: Records Managers and Archivists¹

| Question | Y | N | ?² | Notes |
|--|---|---|----|-------|
| 1. Agreement | | | | |
| <ul style="list-style-type: none"> ▪ Is the effective start date of the agreement clearly stated? ▪ Is there an explanation of circumstances in which the services could be suspended? ▪ Is there an explanation of circumstances in which the services could be terminated? (See also Section 8) ▪ Is there an explanation of notification, or an option to subscribe to a notification service, in the event of changes made to the terms governing the service?³ | | | | |
| 2. Data Ownership and Use | | | | |
| <ul style="list-style-type: none"> ▪ Do you retain ownership of the data that you store, transmit, and/or create with the cloud service? ▪ Does the Provider reserve the right to use your data for the purposes of operating and improving the services? ▪ Does the Provider reserve the right to use your data for the purposes of advertising? | | | | |

Most frequent gaps

- Data retention and disposition
 - Data preservation
 - Data location
 - End of contract
- Not (fully) addressed in the majority of the contract terms



Data retention and disposition

- Are your data (and all their copies) destroyed
 - In compliance with your data retention and disposition schedules
 - Immediately and permanently
 - According to a secure destruction policy?
 - Report of deletion ? (if requested)
 - What about metadata ?



Data storage and preservation

- Who is responsible for backups and for recovering deleted or corrupted data?
- Are records migrated or emulated in a way that preserves their authenticity, reliability, integrity and usability?
- How will the service evolve?
 - Will you be noticed of any evolution that could impede the authenticity of your data?



Data location & Cross-border data flows

- Location of the data (and their copies)?
 - Does it comply with the location requirements imposed by law? (if applicable)
 - Will you be notified if the data location is moved outside your jurisdiction?



End of Service – Contract termination

- At the end of the contract, whatever the reason
 - Warranty that your data will be restored in a usable and interoperable format?
 - Time, procedure and cost?
 - Provider's assistance?
 - Right to access to the associated metadata generated by the system?
 - After restitution of data, immediate and permanent destruction?



Thank you !

Any question ?

Checklist for cloud service contracts :



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