Forgotten But Not Gone
Identifying the Need for Longitudinal Data Management in Cloud Storage

Mohammad Taha Khan, Maria Hyun, Chris Kanich & Blase Ur
Cloud Storage

2007
Cloud Storage

2007

Dropbox

2018
Cloud Breaches Are Real

Hi Mohammad Taha,

We’re reaching out to let you know that if you haven’t updated your Dropbox password since mid-2012, you’ll be prompted to update it the next time you sign in. This is purely a preventative measure, and we’re sorry for the inconvenience.

To learn more about why we’re taking this precaution, please visit this page on our Help Center. If you have any questions, feel free to contact us at password-reset-help@dropbox.com.

Thanks,
The Dropbox Team
Email Phishing scam does the trick for the Hacker.

Email phishing is a very old technique used by hackers to get the log in credentials of the victim. On September 23rd 2016 a man hacked into iCloud and Gmail accounts of 30 celebrities in Los Angeles. As per the report the hacker conducted the email phishing scam trough his computer from Chicago.

Mr. Edward Majerczyk the man behind the email phishing scam has pleaded guilty to computer fraud in federal court on 28th of September 2016. He had been charged and found guilt on violating the Computer Fraud and Abuse Act and faces a maximum of five years in prison.

Fappening Hacker Admits to Stealing Celebrity Pics from iCloud Accounts

By, January 13, 2018 - Swati Khandelwal
Identify whether there is a need for longitudinal data management in cloud storage services
Study Overview

API-based File Access  →  100 Participants  →  Survey-based Study
Cloud Storage Study

OR

[Google Drive Logo]

[Dropbox Logo]
Generic Survey
File Specific Survey

File 1/10

File Name: Passport_scan.jpg

Location within Dropbox: /ScannerApp/MobileUploads/

You MUST view the file in Dropbox before proceeding.

View file in Dropbox
Demographics and Features
Survey Participants

88% of accounts > 3 years old

80% used for both professional and personal

Media and documents were most common
Shown Files Were Recognized

Asked if files were recognized

Less likely to recognize files from others

Documents and images were most recognizable
Some Files Will Never be Accessed

Never Access In Future:

- 23%
- 30%
Desired Management Decisions

- Keep As Is: 59%
- Delete: 34%
- Encrypt: 7%
Desired Management Decisions

- Keep As Is: 59%
- Delete: 34%
- Encrypt: 7%
Management Decisions Varied

![Bar Chart]

- **Keep as-is**
- **Delete**
- **Encrypt**

Variable decisions as a function of the number of files and participant count.
Generalizing Decisions

Generalized decision to similar files

Keep media files as is

Delete other “not useful” files
Not All Files Were Remembered

Not remembered:

34%  39%
File Sharing

Keep Sharing

Stop Sharing

34%

11%
Key Findings

Many files in the cloud forgotten

Disconnect between desire and ability

Tools must handle large archives

Tools must handle long-lived archives
Conclusion

Longitudinal file management is necessary

Need for scalable retrospective management tools

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