Photo Archiving:

where have all your digital photos gone?

Tony Stieber

OSTA 19 Sept. 2007

Digital Failure

- Damage rarely visible

- Photo damage: unreadable

- Collection damage

- Recovery services

How did they disappear?

- Internal media failure
  - From consumer point of view, media failure only one aspect, best known

- Other……..
  - Industry needs to understand whole scenario
  - Many things to go wrong – lack of confidence

- Business opportunity for that trusted medium

What can go wrong
- besides hardware or media?

- **Short term:**

    - **Mistakes**
    - **Moving Photos**
    - **Malice**
    - **Metadata**
    - **Media Incompatibility**

- **Long-term**

Mistakes

- Erasure

- Overwriting

- 'Left behind' photos

- Displacement: e.g.Drag & Drop Disappearances

Moving photos

- Migration to a new computer / drive

- Size mismatch of source and backup media

- Transmission problems
  - bit errors
  - cryptic user messages "warning, this is a read only file"
- Backup frequency

Moving photos

- Migration to a new computer / drive

- Size mismatch of source and backup media

- Transmission problems

- Backup frequency

Malice

- Virus
  - Erasure / modification / displacement
  - Time-bomb
  - First Day
  - Prevention: virus software necessary but not sufficient

- Theft

Metadata

- Folder systems (folder systems are in effect metadata)
  - Hierarchy
  - Duplicate filenames
  - Meaningless filenames

- Database systems
  - 'Hidden' DB
  - DB versions
  - Cross-application compatibility?

- Vista changes

Media Incompatibility

- Incompatibilties within optical media types
  - Experience with CDs: can be read on some drives, not on others

- Confusing
  - +, -, RW, R, Blu ray, HD, double /single sided
  - Different user flow for writing DVDs and CDs (no documentation)

- Poor hardware labeling
  - can you write with this drive or only read?

- Result: caution!

What can go wrong that is not related to hardware or media?

- Short term:
  - Mistakes
  - Moving Photos
  - Malice
  - Media Incompatibility
- **Long-term:**
  - **Disaster**
  - **Change in Standards**
  - **Online**
  - **Photo Software obsolescence**
  - **Family Factors**

Disaster

- Localized
  - Fire
  - Flood
  - Wind
- Wide-area
  - Earthquake

Changes in Standards

- Image format

  - Essential to manage legacy formats when designing new formats

  - Backwards compatibility

  - Migration service / tools

  - Lossless migration

  - Metadata standards

- Sort order

  - XP changes in sort order from that in previous OS versions

Online Photo and Backup Services

- Contact
  - Email might change, and user gets no warning of deletions

- Quality maintenance
  - Resolution maintained?

- Business model
  - Business model: must make payments/purchases or company may go out of business

Photo Software Obsolescence

- Database migration?

- 'Hidden' DB

- Loss of metadata

- Must: Metadata embedded in image file

Family Factors

- IT Management

- Legacy

- Volume

- Family Problems

What everyone is afraid of……..

Media Failure and recovery?

- Flash drives

- Hard drives

- Optical media
  - Consumer has no idea what to buy
  - Consumer has no idea how to store

Question

When will we be free of the risk of data loss?

Answer

Never!

Stone, Paper, Film, all carry some risk

Need to minimize risk; bring to an acceptable level

What can OSTA do?

- Longevity standards, certification and labeling (ODAT)

- Consumer education
  - (e.g. www.savemymemories.org)

- Photo/Video/Audio storage standards
  - MPV, Everplay

== > *Business Opportunity for the Trusted Medium*

There are two kinds of digital photographers:

(a) those who have lost a bunch of valuable photos and

(b) those who will lose a bunch of valuable photos in future

Quote from a modern day philosopher (who shall remain nameless)