

Collecting

| Process | Strength | Weakness |
|--|--|--|
| Search existing data literature search | Text based – doesn't require special equipment to read | Limited access, you have to travel to where the literature is stored |
| Interview | Interviewer is able to ask additional questions and obtain further details | Interviewer may be biased and/or may not be consistent with each interview |
| Surveys and questionnaires | Ability to locate detailed information on exactly 'what you want' | Time consuming |
| Manual recording | Qualitative 'human' values can be recorded | Slow rate of gathering |

| Data collection device | Data collected | Weakness |
|------------------------|-------------------|--|
| Scanner | Image, Text (OCR) | Large books and curved surfaces difficult to scan |
| Digital camera | Image | Limited resolution |
| Microphone | Audio | Difficult to just record a single audio source when other audio is present |
| Video camera | Video | Poor performance in low light conditions |
| Keyboard | Text, numbers | Keyboard skills required for effective use |
| Optical readers | Numbers | Slow speed of scanning and orientation must be correct |

- Scanners are used to obtain to digital representation of a static image.
- A digital camera takes pictures digitally without using conventional film.
- Forms – a form is a pre-designed document, with spaces provided to enter data. The form is displayed in a printed paper form and/or on a computer display.

Organising

Non computer tools for organising

- Phone book – record for phone numbers
- Dictionaries – meanings and definitions of words
- Thesaurus – list of alternative words
- Card catalogues – library stocktake
- Microfiche – data archival on film
- Pigeon holes – internal delivery of docs
- Street directories – town maps
- Almanacs – geographical records
- Data books – organises raw data

Hardware

Level and filtering chip(s) – prepares an analog signal for digitisation

Digital to analog converter (DAC) chip(s) – converts digital data to an analog signal

Digital signal processor (DSP) chips(s) – in association with software in ROM, the DSP adjust and/or organises data to produce the final digital data

Digital camera (image)

Scanner (image)

Microphone (audio in)

Video (animated image)