- Human–computer interaction (HCI) involves the study, planning, and design of the interaction between people (users) and computers.
- **Human values** – things we hold desirable in situations/societies/cultural contexts; alters from person-to-person
  - They guide our actions, judgements and decisions; fundamental to what makes us human
  - Some are easily agreed on – such as love your children; others more contentious – e.g. spiritual/religious
  - Some value contradict: e.g. connection/privacy, freedom/security

At Work	Beyond Work
Efficiency	Fun and enjoyment
Productivity	Fashion and style
Save time and money	Spend time and money
Security	Social connection
	Mobility and freedom
	Health and happiness
	Creativity and self-expression
	Privacy and safety
	Experience, aesthetics

Project	Values
Mobile TV	Reliving the moment, sharing highlights. Trading vs trafficking content – legality
Awareness for families	When does monitoring become spying?
Augmenting human memory	Remembering, sharing, connecting with others. Identity, privacy – need to forget!
Working with photos	Social connection, preserving family history, reflection, play and creativity, (Sellen et al., 2009)
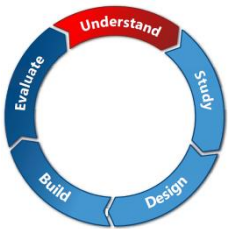
1. Conceptual analysis
2. Research to understand human need
3. Design technology to meet need
4. Build the design
5. Evaluate ability of technology to meet need; lessons for future design

Organisations: **Workplaces ≠ Homes**

- Designed to accommodate technology – e.g. cabling	- Not designed for technology – not on a large scale
- Professional planning, installation and maintenance	- Installation/maintenance are big hurdles to adoption
- Adults of working age; no children	- Babies, children, pets… not restricted to just adults
- Standardisation and protocols are in place	- Few standards for tech infrastructure in homes

Individuals: **Knowledge Workers ≠ Consumers**

- Motivations, concerns, resources and decision making processes are all oriented to business goals	- Purchases based on aesthetics, fashion, self-image
- Buying decisions based on productivity/cost factors	- These are in addition to practical considerations of cost and utility

Teams: **Organisations ≠ Families**

- Organisational teams are based on hierarchal structures; family structures are complex, non-hierarchal
- Decision making and value setting are quite different within households

Home technology-economically important; rich research field

Issues: Trickier informed consent & intellectual property; challenging to predict view of technology; determine fidelity of prototype; permanent changes for temporary trial study; site to conduct research, stimulated or actual environment; can be difficult to add infrastructure technologies and limited validity of single-family residences.

Cultural probes use a collection of tools, artifacts and tasks intended to provoke the user to look and think about their environment in new ways. Responses from these probes initiate a dialogue between the designer and group. With minimal intrusion, researchers can glean insights into participants' environments that can help to identify problem statements, uncover new opportunities, and inspire the designer with new ideas and novel solutions. This method is applied during the Learn Phase. Cultural probes can be an effective research method when it is unlikely that one would be able to gain deep insight through other methods.

1) Kit Design –identify the goals, activities and materials
2) Demographics – carefully selected participants
3) Delivery: Kits are delivered to participants ideally in person, explain each item & overall intention of research.
4) Materials: Designers should carefully select the items & overall design of the kit to elicit the desired response. Kits should be playful & professional. Popular items- disposable cameras, maps, stickers, postcards and notebooks.
5) Activities: Include instructions with the kit to guide participants on completing the tasks. For example: Take a picture of the heart of your house.
6) Follow-up – Once the kits are completed, researcher meets with participants again to share inspiration that user's artifacts sparked and to engage in deeper conversation where appropriate.
7) Analysis – A debrief can be conducted with participants to interpret the probes, as well as to identify similarities and patterns. Researchers will then interpret the findings and may contact participants to clarify and validate them.