# CH3 Managing the design process

* Design is inherently creative and unpredictable. Interactive system designers must blend knowledge of technical feasibility with a mystical esthetic sense of what attracts users. Shared language.
* Carroll and Rosson design characterization.
  + Design is a process, not a state
  + The design process is *non-heirarcharchical*.
  + The process is *radically* *transformational*.
  + Design intrinsically involves the discovery of new goals.
* “usability engineering” has evolved into a recognized discipline with maturing process etc.
* Four Pillars of design
  + User-interface Requirements
    - Ethnographic Observation
      * Be sensitive to the culture.
      * What is the social impact of your class
    - Action sequences
      * Direct-manipulation clicking, dragging, dropping, and gestures
      * Command syntax, semantics, and sequences
      * Programmed function keys
      * Errors handling and recovery procedures
    - Training
      * Online help and tutorials
      * Training and reference materials
      * Command syntax, semantics, and sequences
  + Guidelines Documents & Process
    - Theories & Models
  + User-interface Software tools
    - Algorithms & prototypes
  + Expert Reviews & Usability Testing
    - Controlled Experiments