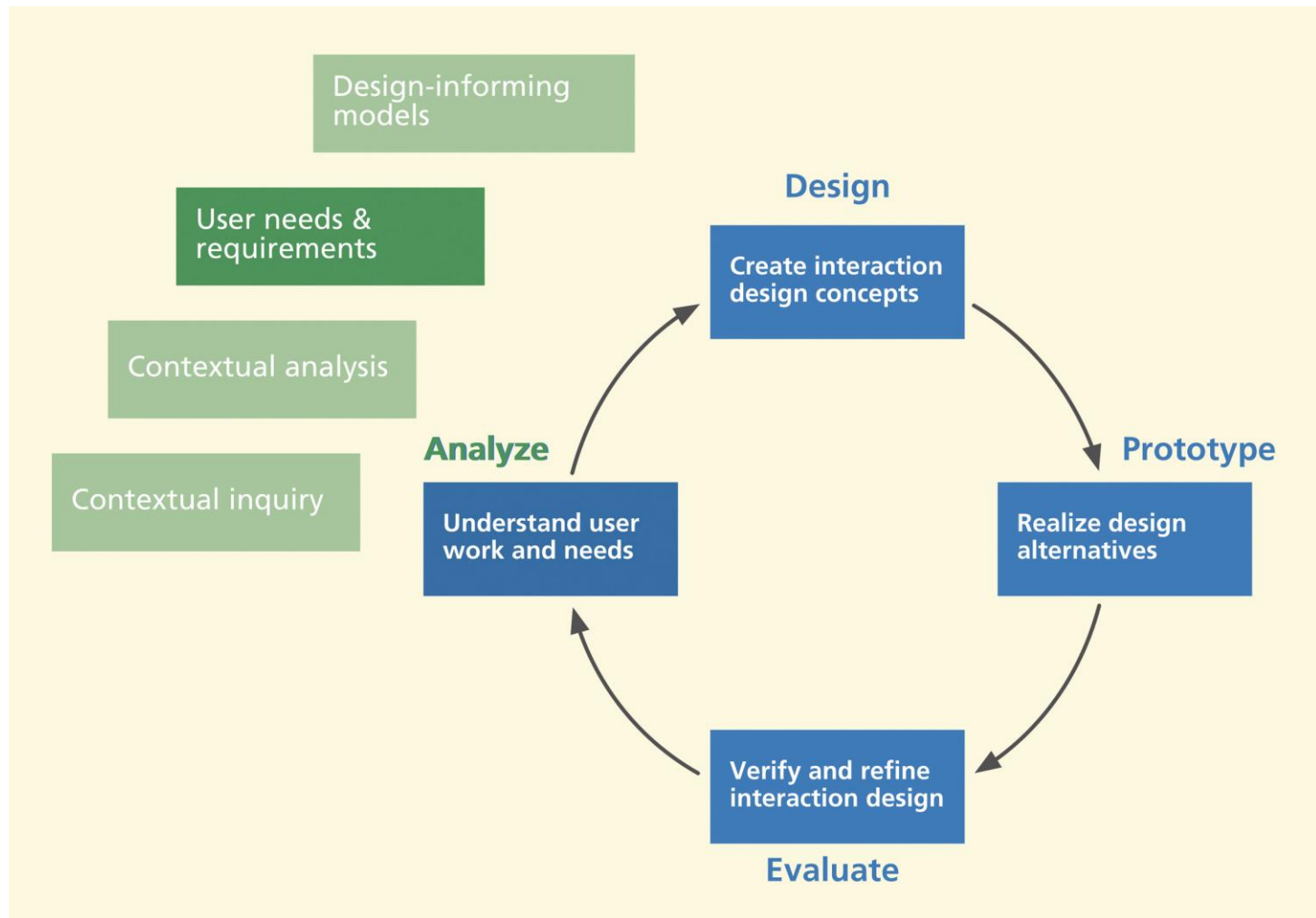# Extracting Interaction Design Requirements

Selected material from *The UX Book*, Hartson & Pyla

R.I.T

What are UX Requirements?

- "Requirements" means **interaction design requirements**

- **Not software engineering requirements** specification to support software design
  - But feature/function overlap

- **Work activity notes** are **not requirements**

- Requirements bridge contextual inquiry and analysis to design

R.I.T

Software Engineering

Requirements Extraction

- Switch from inductive to **deductive** reasoning
  - What requirement is "deduced" from a work activity note in a WAAD?
- **Walk the WAAD** one note at a time to deduce needs and requirements
  - What **user needs** are implied by the work activity note?
  - Filter terminology to achieve consistency
  - **Translate** each **user need** into one or more **interactive design requirements**
    - Capture software requirements as by product
  - Document requirements

R.I.T

Requirements Statements

- Generic structure of requirement statement
    - **Major feature** or category **name**
    - **Second-level feature** or category **name**
    - **Requirement statement** [WAAD source node ID]
    - **Rationale** (if useful): Rationale statement
    - **Note** (optional): Commentary about this requirement

R.I.T

Example

- Work activity note: "I am concerned about privacy and security of my transactions"

Security

Privacy of ticket–buyer transactions

Shall protect security and privacy of ticket-buyer transactions [C19]

Note: In design, consider timeout feature to clear screen between customers.

R.I.T

Another Example

- Work activity note: "I sometimes want to find events that have to do with my own personal interests"

Transaction flow

Recommendations for buying

Ticket-buyer purchases shall be supported by recommendations for the purchase of related items. [DE2].

Implied system requirement: During a transaction session the Ticket Kiosk System shall keep track of the kinds of choices made by the ticket buyer along with the choices of other ticket buyers who bought this item. [DE2].

Note: Amazon.com is a model for this feature.

R.I.T

What to Look For

- **Functionality** of course
- **Usability** goals
- **Emotional impact** – "fun", "boring", …
- **Consolidate notes** to condense ideas
- **Extrapolate notes** to broaden
- **Missing information**
- External **constraints**

Validate

- Review with customers and users
- Prioritize in collaboration with customers and users
- Resolve identified issues

R.I.T

Usability Requirements
"Ease of Use"

- **Interactive requirements** define **what** user **interactions** are necessary to **accomplish work goals**

- **Usability requirements** quantify the **quality** of the **interaction**

  - Learnable

  - Memorable

  - Efficient

  - Understandable

  - Satisfying

R.I.T

Usability Requirement Examples (Buy a Ticket) (MULES)

- The user shall be reminded if a held ticket is to expire.
- The user shall be guided through each step of the ticket purchase transaction.
- The user shall be provided with instructions for how to recover from an error in performing the purchase transaction.
- The user shall not make any errors in performing the ticket transaction after completing their first ticket purchase.
- The ticket purchase transaction shall be completed without errors in three minutes.
- 90% of users, who complete a survey, shall express satisfaction in post transaction surveys.

R.I.T