

Chapter-06

the software lifecycle - designing for usability

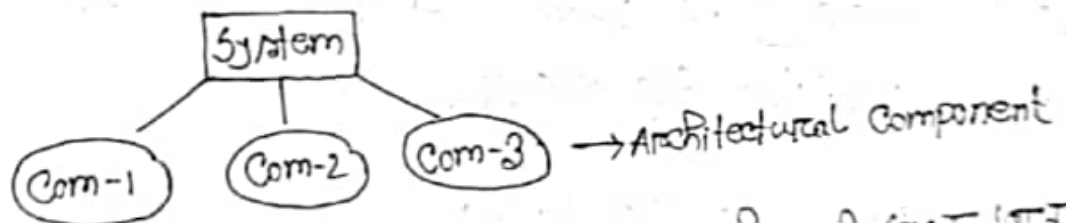
usability life cycle এর প্রায়শঃকর্তা stage ৩ টি :

* the waterfall model

* Activities in the life cycle

তথ্য চীক্স বিনতীক্স দেখুগ্ন করা যায় কুসা য়াং পর্যন্ত
বিঃ চাওয়া-খাওয়া

Architectural Design



Detail design ৬ (Com-1) অনুসন্ধানকে আরও ছোট ছোট প্রকল্পে
করু implement করু ।

→ existing system নিষ্কর করু maintain - maintenance

Validation & verification
User Tester & developer

* verification is designing the product right (accuracy)

* validation is " " " right product (suppose বাসে)

যদিও Ride sharing App এর নামে বাস নামে food sharing
app) Not valid.

preliminary
Requirement → Build
prototype → Evaluate
prototype

↑
Throw-away prototyping scene

* Incremental & throw away જે સમજી difference
[જેટ detailed guess બાકી ન રહેલ differences પૂર્ણ]

Types of design Rules

principles

- Abstract design Rules
- low Authority
- high generality

Standards

- specific design Rules
- high Authority
- limited Application

increasing generality



guidelines

- lower Authority
- more general application

increasing Authority

Design principle

① Learnability



- ① predictability
- ② synthesizability
- ③ familiarity
- ④ Generalisability
- ⑤ Consistency

② Flexibility



- ① Dialog Initiative
- ② Multi threading
- ③ Task migrability
- ④ Substitutivity
- ⑤ Customisability

③ Robustness



- ① Observability
- ② Recoverability
- ③ Responsiveness
- ④ Task Conformance

Learnability

- User can learn the system without knowledge gain easily.

Generalisability

- User can learn the system without knowledge gain. User can learn the system without knowledge gain.

Familiarity

- Recycle bin
sign (☐)

Synthesizability

- Immediate honesty
- eventual "
- User can remove the file and see the previous file and see the file in the previous moment.
- User action can be change and see the user action and see the change.

Predictability

- User's ability to envision which operation can be performed next.
- User can predict the next operation and see the next operation.

Flexibility

सीधे data आदान प्रदान था।

→ It extends the way a user & system exchange info

Dialog Initiative

① user preemptive → [user control]

② system " → [system control]

Multithreading

① Concurrent →

{ docx व निशुद्धि आता यात जाण उ ठुन
multiple वाक कर। एव action क

→ ② interleaved → multiple file open करत पावत
किन्तु action थोडा किती file

→ किती system व एकदिव वाक करत पाव। किता

आपने open but edit
करा

Task Migrability

→ user व system व अंग task migrate

था like spell check, "Buet" → "But" → "BuET"

Substitutivity

→ एकदिव वाक आदुकरन कर

Customisability

→ मिळवू असा customize कर

Robustness

- System goal achieve করার জন্য user কে সাহায্য দেয়।
- Excel খুলে, docx লগ্নি করার বা পরিচিতি দেওয়া

Observability

- provides the users with an ability to evaluate the internal state from its representation
- user কে কতটা দিচ্ছে হবে system টা বুঝতে দেয়। like box এ পাঠানো হলে উঠে পড়ে "please wait"।

Recoverability

- Able to reach goal after recognition of system error
- কোনো ভুলে করলে যাতে recover করে নির্দিষ্ট goal টি achieve করা
- Ctrl Z, Recycle bin.

Responsiveness

- the rate of communication between system & user.
- কোন system user এর সাথে কতটা communicate করে।
- print button এ click করলে response করে বা button

Task Performance

- task completion & task adequacy.

- user যে কাজ করতে চায় সেটা আদার system টি কতটা support করে। docx এ print করা যায় না।

Practice-Question.

Consider a mobile or web application you are familiar with. Now explain how the application follows or violates the principle to support learnability.

Standards

1. National & International level ୧ ଅନୁ
2. Hardware ୧ standard ନିମ୍ନ

effectiveness → କୌଣସି goal achieve କରୁଥିବା ପାର୍ଯ୍ୟ

design proper କି ନା ତାହା standard affirmed ଅନୁ ନ

guideline ଏହା hard & fast rules ନା ହେ ସାଧନ ହେବ.

like . building ୧ fire ନିରାପନ ସହ ସାକାରି ହେଉ standard
ଏବଂ ଯୋଗାଯୋଗ ବାଧା ନାହିଁ guideline.

* higher level ୧ ତଳେ ତଳେ design ୧ detailed guideline
ନିର୍ଦ୍ଧାରଣ ହେବ

Golden rules & heuristic (ଗୋଲ୍ଡେନ ରୁଲ୍ସ)

Shneiderman's 8 Golden Rules

1. Strive for Consistency
2. Enable frequent users to use shortcuts
3. Offer informative feedback (button ୧ କ୍ଲିକ୍ ହେବା ବାହାରି ହୁଏ ଏବଂ
କି icon)
4. Design dialogs to yield closure

5. offer error prevention & simple error handling
6. permit easy reversal of actions [friend & friend's part
कम से delete करके भाग]
7. support internal locus of control [user control]
8. Reduce short-term memory load.

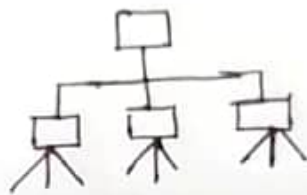
[Chapter-7 सबसे Important]

Norman's 7 principles

1. Familiarity
2. System should be easy to use. Suppose farmer's app बनाना है तो NIP, phone, email उससे किसे करिना उठे बिना न

3. Execution and Evaluation

4. Sitemap



5. Dark mood आता . Design based on power of constraints

6. Design for error

7. डिप्लोमेट 6 टाईल fail करे करने standard करे

↓
market & standard
product copy करे ।

[Chapter-7 , Norman's 7 principles पढ़ें]

CT → Tuesday → Chapter 6, 7.

