

Pertemuan 10

Metodologi perancangan sistem interaksi dan evaluasinya (1)

Pokok Bahasan :

1. Tiga pilar perancangan
2. Metodologi pengembangan
3. Ethnographic Observation
4. Skenario Pengembangan
5. Expert Reviews

1. The Three Pillars of Design

- **Dokumen dan proses yang menjadi Pedoman**

Setiap proyek memiliki kebutuhan yang berbeda, oleh karena itu pedoman adalah hal yang harus dipertimbangkan untuk digunakan, :

1. Words, icons, and graphics

- Terminology (objects and actions), abbreviations, and capitalization
- Character set, fonts, font sizes, and styles (bold, italic, underline)
- Icons, graphics, line thickness, and
- Use of color, backgrounds, highlighting, and blinking

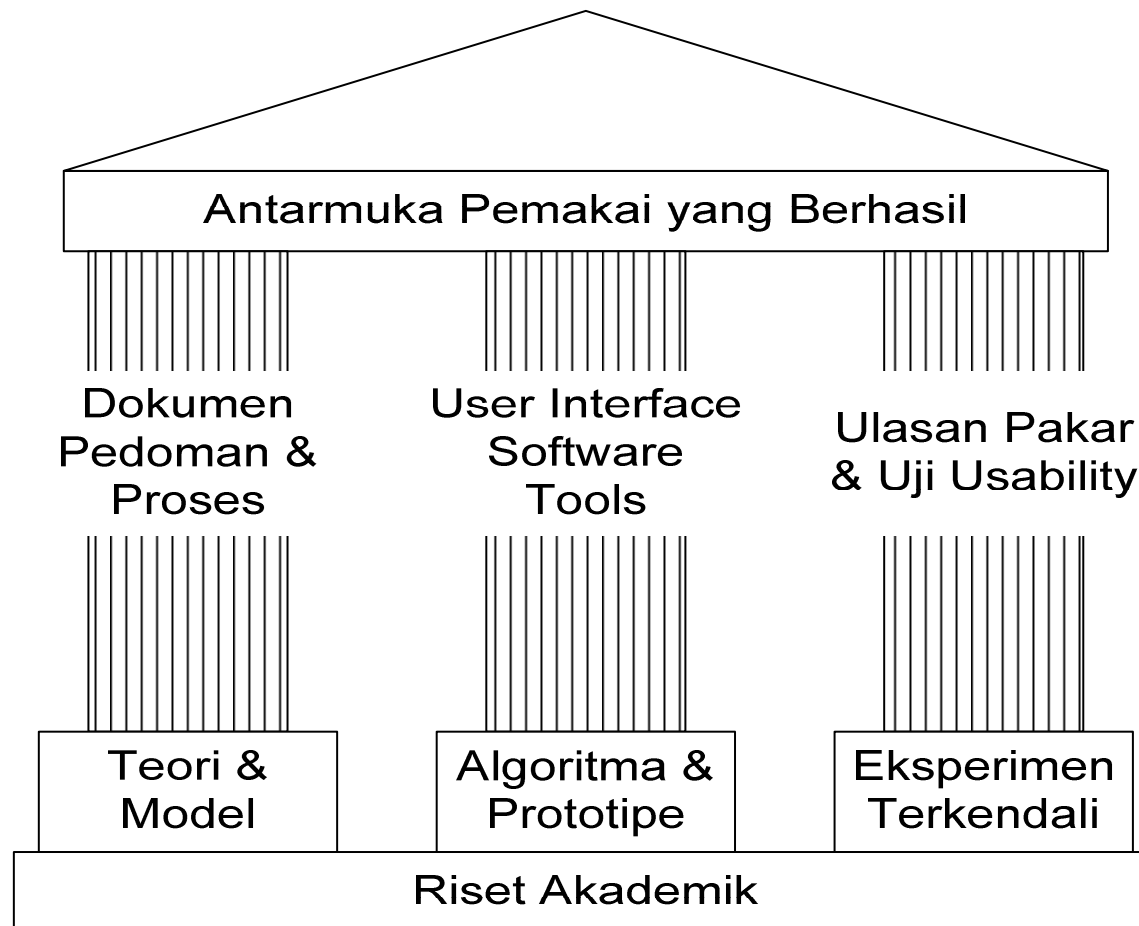
2. Tampilan keluaran

- Menu selection, form fill-in, and dialog-box formats
- Wording of prompts, feedback, and error messages
- Justification, white space, and margins
- Data entry and display formats for items and lists
- Use and contents of headers and footers

3. Input and output devices

- Keyboard, display, cursor control, and pointing devices
- Audible sounds, voice feedback, touch input, and other special devices
- Response time for a variety of tasks

Tiga Pilar Perancangan



2. Metodologi pengembangan sistem interaksi

The Logical User-Centered Interactive Design Methodology (LUCID) (Kreitzberg):

1. Kembangkan konsep produk
2. Riset dan analisis kebutuhan
3. Konsep perancangan dan prototipe layar kunci
4. Perancangan iteratif dan perbaikan
5. Implementasikan software
6. Dukungan rollout

The Twelve areas of the LUCID Management Strategy

1. Definisi produk,
2. Business case,
3. Sumber daya,
4. Lingkungan fisik,
5. Lingkungan teknis,
6. Pemakai,
7. Fungsionalitas,
8. Prototipe,
9. Usability,
10. Panduan perancangan,
11. Panduan isi,
12. Dokumentasi (pelatihan dan petunjuk).

Role by phase: process navigator

Role by phase matrix

Role/phase matrix	All Phases	Business Opportunity	Understanding Users	Initial Design	Development	Deployment	Life Cycle
All Roles							
User Experience Leadership		User Engineering Plan - Initial	User Engineering Plan - Final	Execution of the User Engineering Plan	Satisfaction of established metrics	Project Assessment	Satisfaction Survey
Market Planning		Business and Market Requirements	Appropriate User Requirements	Draft Marketing Collateral	Detail Marketing Collateral	Final Marketing Collateral	
User Research			User Requirements	Appropriate Design			
User Experience Design			Design Direction	Conceptual Design, Low-Fidelity Prototypes	Detail Design, High-Fidelity Prototypes	Design Issue Resolution	
Visual & Industrial Design			Appearance Direction	Appearance Guidelines	Appearance Specification		
User Experience Evaluation			Competitive Evaluation	Conceptual Design Evaluation	Detail Design Evaluations	User Feedback and Benchmark	Usage Issue Report

The matrix above depicts the key user engineering roles and the phases of a generic development process. At each role-phase intersection is a synopsis of the contribution that role provides during the phase. You can use this matrix to access more detailed information about each role, each development phase, and role-phase activities.

3. Ethnographic Observation

- **Preparation**

- Pahami kebijakan dan budaya kerja organisasi.
- Kenali sistem dan sejarahnya.
- Tentukan tujuan awal dan siapkan pertanyaan.
- Minta akses dan izin untuk observasi dan wawancara.

- **Field Study**

- Bangun hubungan dengan manajer dan pemakai.
- Amati atau wawancarai pemakai di tempat kerjanya.
- Kumpulkan data subjektif dan objektif, kuantitatif dan kualitatif.
- Ikuti semua petunjuk yang muncul dari kunjungan.
- Catat kunjungan

- **Analysis**
 - ❖ Gabungkan data yang dikumpulkan dalam database numeris, tekstual, dan multimedia.
 - ❖ Kuantifikasikan data dan gabungkan statistik.
 - ❖ Konsolidasikan dan interpretasikan data.
 - ❖ Perbaiki tujuan dan proses yang digunakan
- **Reporting**
 - ❖ Pertimbangkan peserta dan tujuan yang beraneka ragam.
 - ❖ Persiapkan laporan dan presentasi-kan hasil penelitian.

4. Scenario Pengembangan

Day-in-the-life scenarios:

- characterize what happens when users perform typical tasks
- can be acted out as a form of walkthrough
- may be used as basis for videotape
- useful tools
 - table of user communities across top, tasks listed down the side
 - table of task sequences
 - flowchart or transition diagram

Describe the new system and its benefits

- Convey the high level goals of the new system.
- Identify the stakeholders.
- Identify specific benefits

5. Expert Reviews

Ulasan pakar dapat dilakukan di awal atau di akhir fase perancangan, dan keluarannya berupa laporan formal dengan masalah yang ditemui atau rekomendasi perubahan.

Pakar yang berbeda cenderung menemukan masalah yang berbeda, maka **3-5 pakar** dapat sangat produktif sebagai uji *usability* pelengkap.

- Metode ulasan pakar:
 - Evaluasi heuristik
 - Ulasan kesesuaian dengan pedoman (*guidelines review*)
 - Pemeriksaan konsistensi
 - Penelusuran kognitif
 - Pemeriksaan *usability* formal

Address concerns and potential barriers

- Anticipate changes in job functions and potential layoffs.
- Address security and privacy issues.
- Discuss accountability and responsibility for system misuse and failure.
- Avoid potential biases.
- Weigh individual rights vs. societal benefits.
- Assess trade-offs between centralization and decentralization.
- Preserve democratic principles.
- Ensure diverse access.
- promote simplicity and preserve what works.

Outline the development process

- Present and estimated project schedule.
- Propose process for making decisions.
- Discuss expectations of how stakeholders will be involved.
- Recognize needs for more staff, training, and hardware.
- Propose plan for backups of data and equipment.
- Outline plan for migrating to the new system.

Potential Controversies

- What material is eligible for copyright?
- Are copyrights or patents more appropriate for user interfaces?
- What constitutes copyright infringement?
- Should user interfaces be copyrighted?