Semoga ALLAH memberikan kita **KEBERKAHAN** dan **KEMUDAHAN** dalam belajar...

Ilmu yang bermanfaat

Diploma in Informatics Management
School of Applied Science
Telkom University

Fakultas Ilmu Terapan
School of Applied Science
Telkom University

(DIH3A3) Implementasi User Experience Design

Introduction & General Principle UI Design

TFN, RHN, FRA, SKS | Ganjil 2016/2017

Telkom University

Profile Dosen (SKS)

- Name : Siska Komala Sari
- Contact :
  - Mail : siska@tass.telkomuniversity.ac.id
  - Phone : 081320198038
- Link :
  - http://siskaks.staff.telkomuniversity.ac.id/

TFN – SKS – RHN – FRA

Kontrak Perkuliahan

- Hadir tepat waktu dan Absensi menggunakan **RFID**
- Mahasiswa wajib menggunakan seragam (sesuai hari)
  - Pakaian dan Celana,
  - Sepatu,
  - Rapih dan Wajar
- Ijin ketidakhadiran melalui Layanan Akademik.
- Membawa Laptop sesuai kebutuhan perkuliahan
- **TIDAK!** Makan, minum, merokok, mengganggu ketertiban, komunikasi telepon, menggunakan headset, dsb
- Menjaga Kebersihan dan Ketenangan kelas.
- Nilai tidak bersifat transaksional atau tawar menawar.
- Menjaga sopan santun dan etika kemanusiaan.

Penilaian??

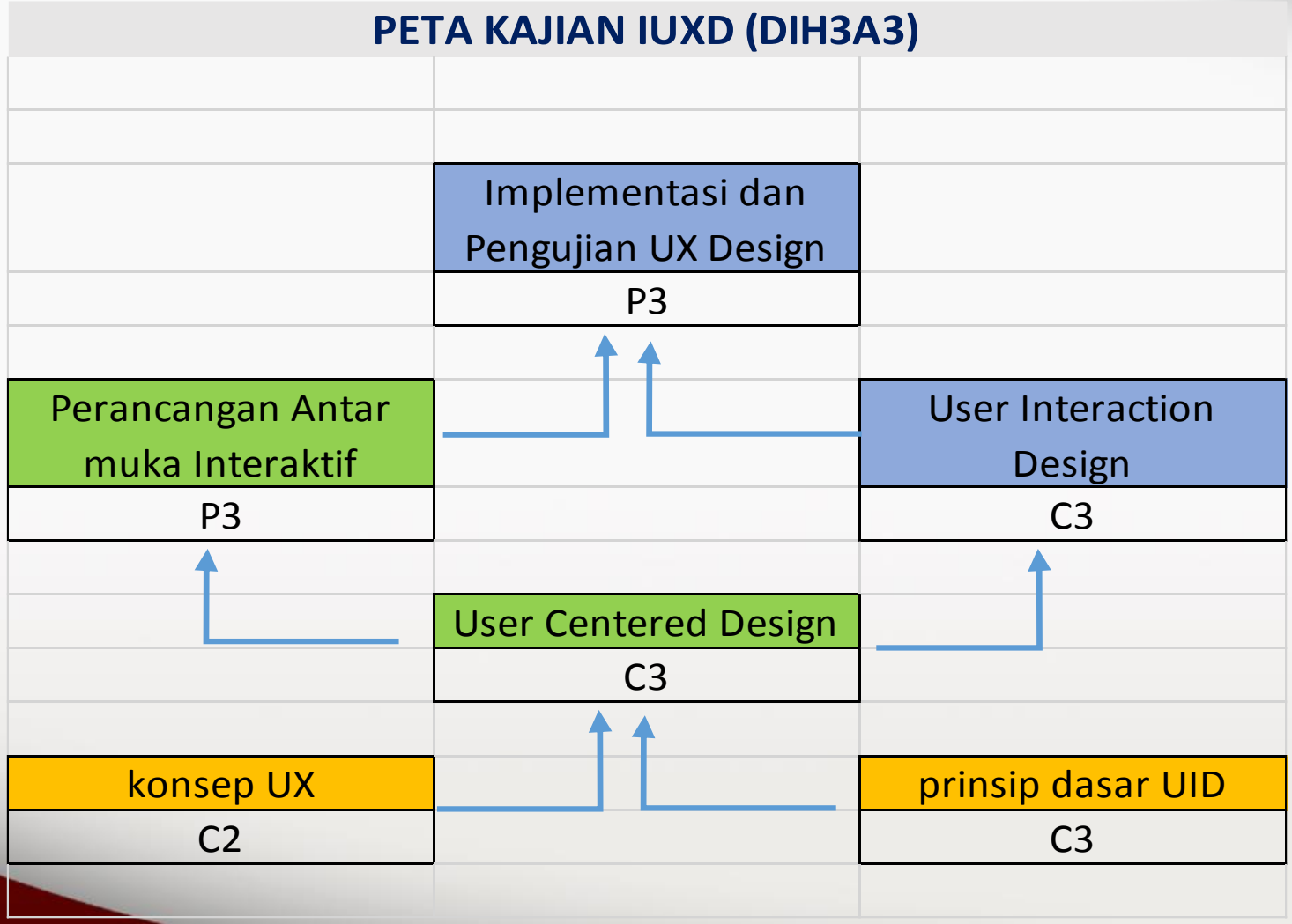
- Berdasarkan acuan kompentensi kajian
  - A : > 80
  - AB : 70 – 80
  - B : 65 – 70
  - BC : 60 – 65
  - C : 50 – 60
  - D : 40 – 50 (tidak lulus)
  - E : < 40 (tidak lulus)

- **Tugas, Latihan dan Quiz : 35 %**
- **Assessment 1 : 20%**
- **Assessment 2 : 20%**
- **Assessment 3 : 25%**

Bahan Kajian IUXD

1. [C2] Mampu memahami dan menggunakan Prinsip dasar UI design, serta konsep User Experience pada tampilan Aplikasi
2. [C3] Mampu membuat perancangan UI sesuai kebutuhan yang berorientasi pada pengguna (User Centered Design)
3. [C3,P3] Mampu menghasilkan perancangan UI untuk penyajian data (information visualization) dan interaksi pengguna (Storyboard)
4. [C3] Mampu mendemostrasikan penerapan konsep User Interaction design pada aplikasi Interaktif
5. [P3] Mampu mempraktekkan implementasi dan evaluasi dasar User Experience Design pada aplikasi Interaktif

DIH3A3 PETA Kajian



Model Perkuliahan

- 60% Diskusi & Tugas
- 40% Ceramah Materi

- Student Center Learning
  - Collaborative Learning
    - Mahasiswa aktif mencari pengetahuan sesuai arahan dosen
  - Self Directed Learning
    - Mahasiswa menyelesaikan kasus secara individu atau berkelompok sesuai kasus yang diberikan

Rerefensi Buku **IUXD**

- Rogers, Sharp. Interaction Design: Beyond Human - Computer Interaction. 3rd Edition. 2013
- Cooper, Alan, Robert Reimann, and David Croin. About Face 3 The Essentials of Interaction Design. Indianapolis: Wiley Publishing Inc, 2007
- Sauro, Jeff. Quantifying the User Experience, Practical Statistics for User Research. 2012
- Rex Hartson, Pardha Pyla. The UX Book: Process and Guidelines for Ensuring a Quality User Experience. 2012

Persiapan!!

- Pastikan Anda memiliki buku Referensi yang disarankan
- Bacalah buku tersebut, sesuai bahan kajian yang diberikan (lihat peta kajian)
- Mulailah bertanya atau berdiskusi di kelas, jika ada hal-hal yang Anda kurang pahami

Ada yang mau ditanyakan tentang perkuliahan ini?

Quote of the day

Diskusi?

(DIH3A3)

Implementasi User Experience Design

Review Concept & Principle

User Interface Design

Materi Kajian #1

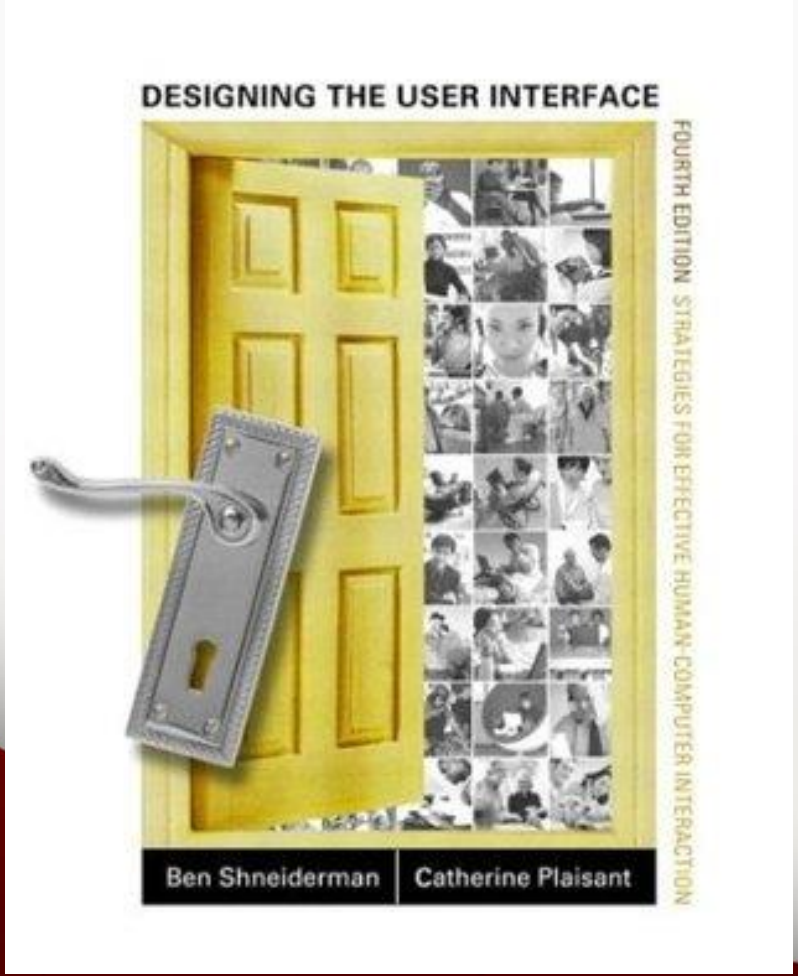
Mg Ke-	Kemampuan Akhir Sesuai tahapan belajar (CP-MK)	Materi Pembelajaran [Pustaka]	Metode Pembelajaran [Estimasi Waktu]	Asesmen		
				Indikator	Bentuk	Bobot (%)
IMPLEMENTASI USER EXPERIENCE DESIGN						
[C2] Mampu memahami dan menggunakan Prinsip dasar UI design, serta konsep User Experience pada tampilan Aplikasi						
1	Mampu memahami dan menggunakan Prinsip dasar UI design	1. Perkenalan dan Kontrak Perkuliahan 2. Overview materi perkuliahan IUXD	100 menit pertemuan tatap muka: Ceramah & Diskusi	Mampu menjelaskan prinsip dasar UI design seperti, 8 Golden Rules for UI, General Principle UI, dan mampu menjelaskan penerapannya pada tampilan Web atau Mobile	Ujian Tulis	25%
		3. Review 8 Golden Rules for UI (Ben Shneidermans) 4. Review General Principle of UI (Galitz) 5. Nielsen 10 Usability Heuristic	100 menit pertemuan tatap muka: Ceramah & Diskusi. Tugas-1			
2	Mengetahui konsep dasar User Interaction Design	Konsep dasar Interaction Design Visibility, Feedback, Limitation, Consistency, Affordance	100 menit pertemuan tatap muka: Ceramah & Diskusi	Mampu menjelaskan definisi User Interaction Design, Karakteristik Interaction Design dan Model Konseptual pada Interaction Design	Ujian Tulis	25%
		Model Conceptual and Perceptual Design Interaction	100 menit pertemuan tatap muka: Ceramah & Diskusi. Tugas-2			
3-4	Mengetahui konsep dasar User Experience Design	Konsep, Strategic dan Principle UX Goals: Usability vs User Experience	100 menit pertemuan tatap muka: Ceramah & Diskusi	Mampu menjelaskan definisi dan konsep dasar UX design, Strategi dan elemen pengembangan UX. Mampu menyebutkan contoh penerapan UX pada design Web dan Mobile	Ujian Tulis	50%
		Elemen pengembangan UX design Process Lifecycle User Experience	150 menit pertemuan tatap muka: Ceramah & Diskusi. Tugas-3			
		Contoh Penerapan desin Web dan Mobile Pembahasan Studi Kasus UX (Diskusi Tugas)	150 menit pertemuan tatap muka: Ceramah & Diskusi			
5	**ASESSMENT 1**	**Sesuai materi pada pekan 1-4**	Ujian Tulis, 100 menit	Capaian Kajian 1 dan Indikator Materi	Ujian Tulis	100%

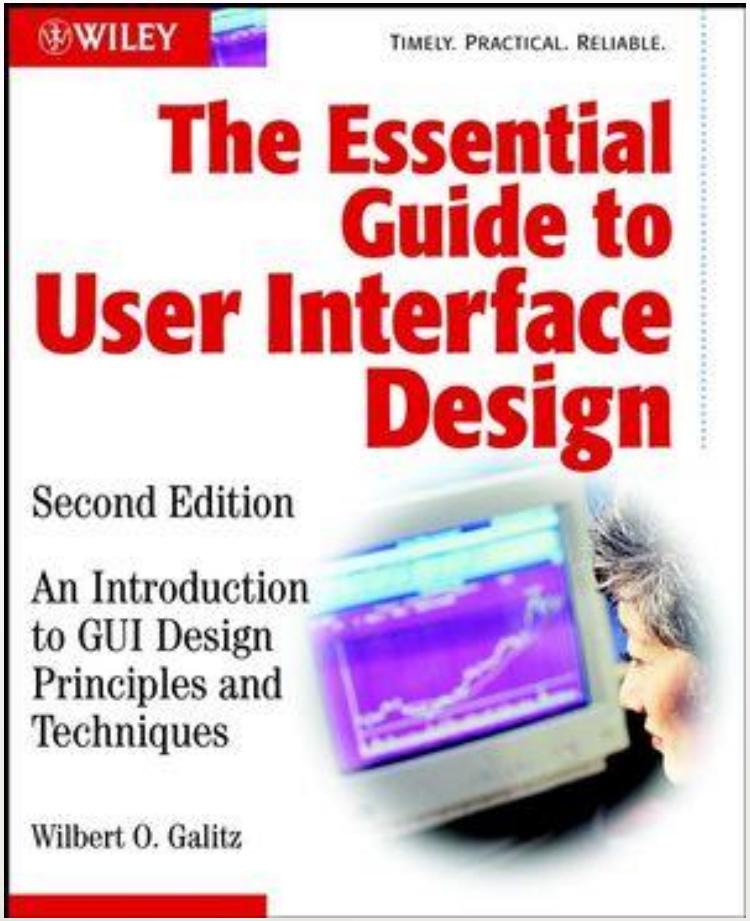
Bahan Kajian #1

1. Mampu memahami dan menggunakan **Prinsip dasar UI design**
2. Mengetahui **konsep** dasar User **Interaction Design**
3. Mengetahui konsep **dasar User Experience Design**

Buku Referensi?

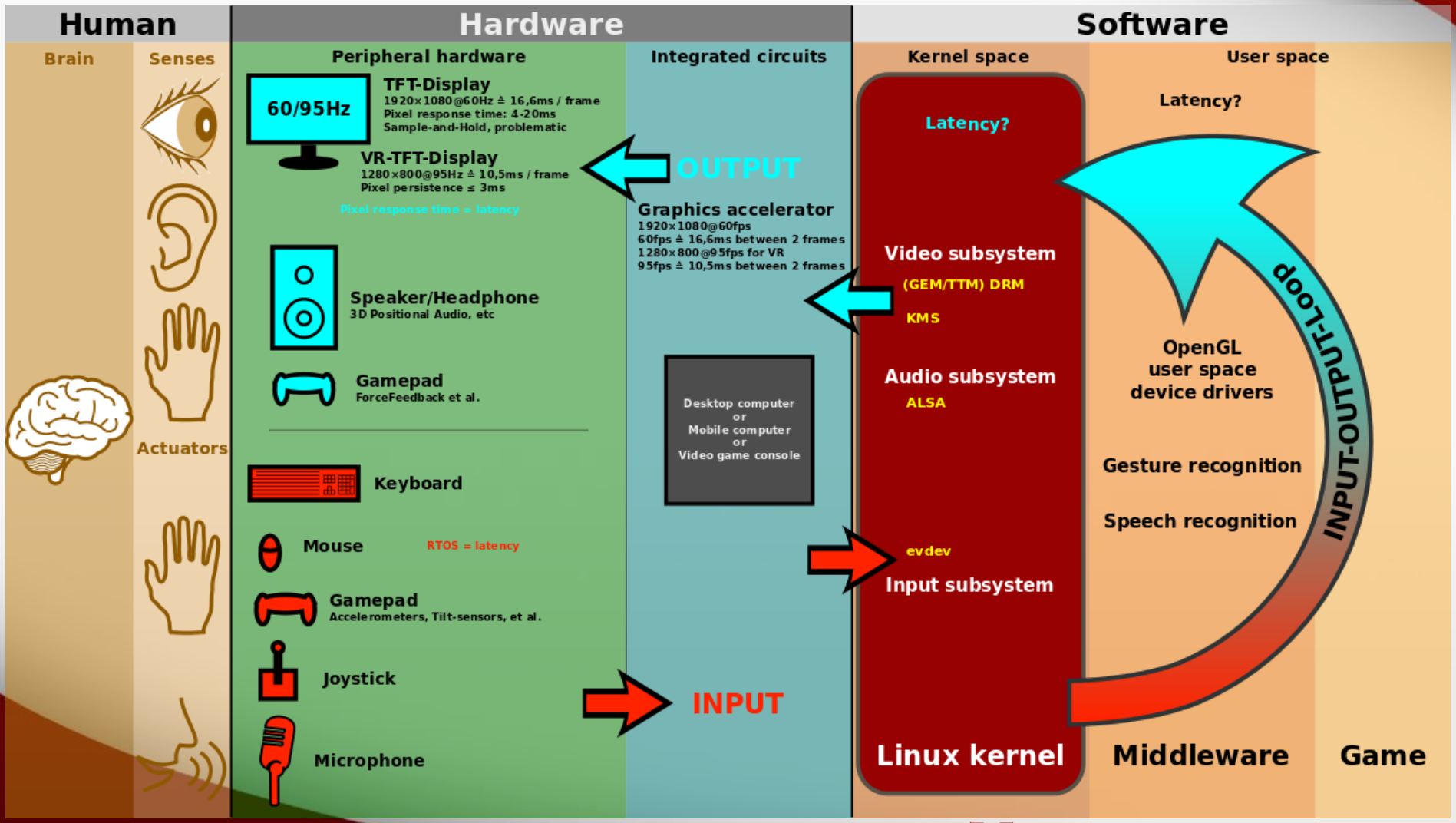
Berbagai Pendekatan, Konsep, dan Prinsip User Interface Design





Konsep dasar HCI - UID

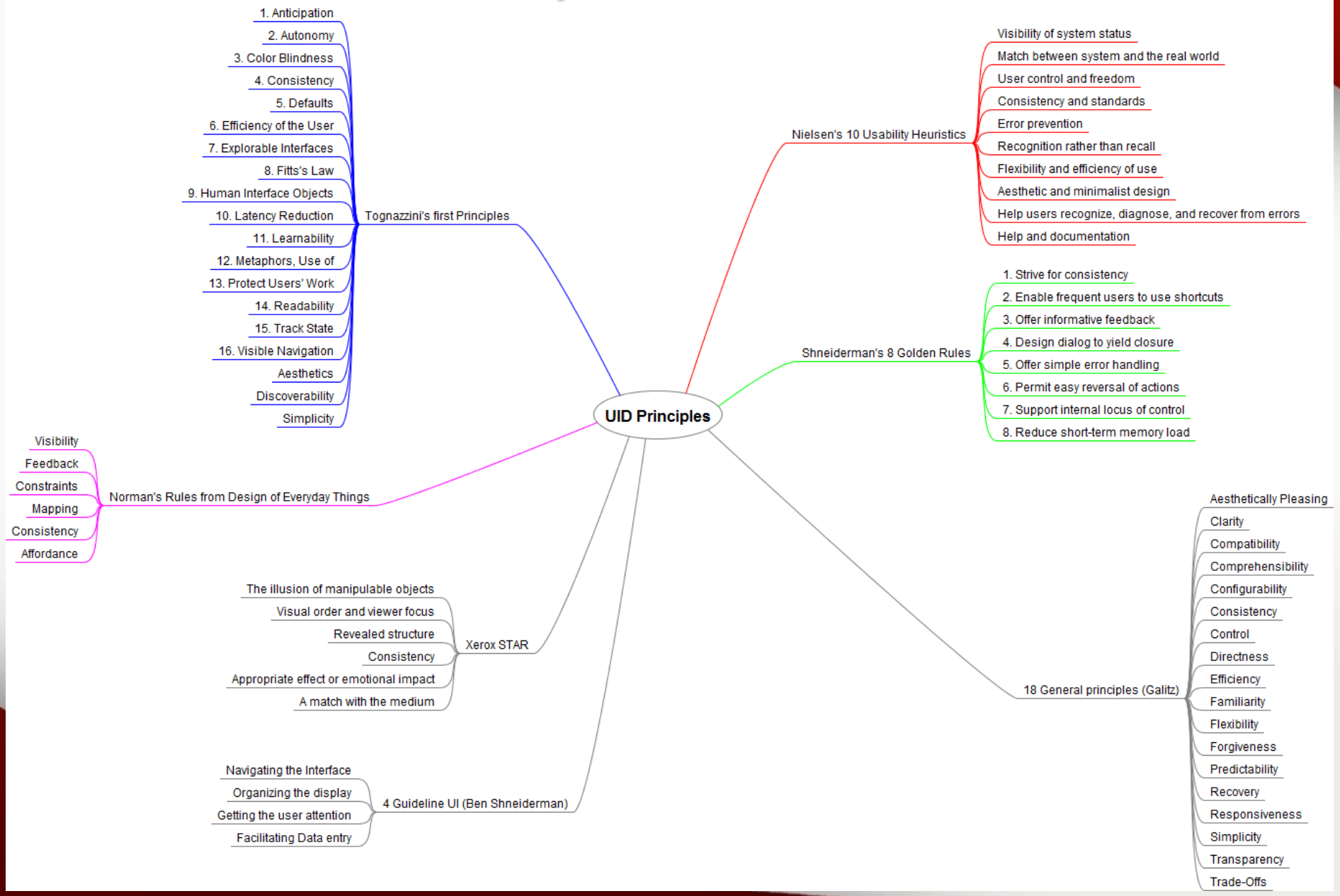
Human Computer Interaction → User Interface Design



Prinsip UID?

- The 8 Golden Rules (Ben Shneiderman)
- General Principle UI (Galitz)
- Nielsen 10 Usability Heuristic
- 4 Guidelines UI (Ben Shneiderman)
- UI Guideline Microsoft Rules
- Etc…

General Principle UID



The 8 Golden Rules of UI

1. Strive for consistency.
2. Enable frequent users to use shortcuts
3. Offer informative feedback
4. Design dialogs to yield closure
5. Prevent errors (handling)
6. Permit easy reversal of actions
7. Support internal locus of control
8. Reduce short-term memory load

18 **General Principle** of UI (Galitz)

Accessibility - Aesthetically Pleasing – Availability – Clarity – Compatibility – Configurability – Consistency – Control – Directness – Efficiency – Familiarity – Flexibility – Forgiveness – Immersion – Obviousness - Operability - Perceptibility - Positive First Impression - Predictability - Recovery – Responsiveness – Safety – Simplicity – Transparency - Trade-offs - Visibility

JANGAN di HAPAL ??!!

- 18 Principle Cukup dibaca saja!
- Harus anda pahami Istilah tersebut
- Anda mengerti bagaimana cara penerapannya

GENERAL DESIGN PRINCIPLES

Aesthetically Pleasing

- Provide visual appeal by:
  - Providing meaningful contrast between screen elements
  - Creating groupings
  - Aligning screen elements and groups
  - Providing three-dimensional representation
  - Using color and graphics effectively and simply

GENERAL DESIGN PRINCIPLES

Accessibility

- Systems should be designed to be usable, without modification, by as many people as possible.

Availability

- Make all objects available at all times.
- Avoid the use of modes.

GENERAL DESIGN PRINCIPLES

Clarity

- The interface should be visually, conceptually, and linguistically clear, including:
  - Visual elements
  - Functions
  - Metaphors
  - Words and text

Compatibility

- Provide compatibility with the following:
  - The user
  - The task and job
  - The product
- Adopt the user's perspective.

GENERAL DESIGN PRINCIPLES

Configurability

- Permit easy personalization, configuration, and reconfiguration of settings.
  - Enhances a sense of control
  - Encourages an active role in understanding

GENERAL DESIGN PRINCIPLES

Consistency

- A system should look, act, and operate the same throughout. Similar components should:
  - Have a similar look
  - Have similar uses
  - Operate similarly
- The same action should always yield the same result.
- The function of elements should not change.
- The position of standard elements should not change.

GENERAL DESIGN PRINCIPLES

Consistency (Continued)

- Inconsistency causes:
  - More specialization by system users
  - Greater demand for higher skills
  - More preparation time and less production time
  - More frequent changes in procedures
  - More error-tolerant systems (because errors are more likely)
  - More kinds of documentation
  - More time to find information in documents
  - More unlearning and learning when systems are changed
  - More demands on supervisors and managers
  - More things to do wrong

GENERAL DESIGN PRINCIPLES

Control

- The user must control the interaction.
- The context maintained must be from the perspective of the user.
- The means to achieve goals should be flexible and compatible with the user's skills, experiences, habits and preferences.
- Avoid modes because they constrain the actions available.
- Permit the user to customize the interface but provide defaults.

GENERAL DESIGN PRINCIPLES

Directness

- Provide direct ways to accomplish tasks.
  - Available alternatives should be visible.
  - The effect of actions on objects should be visible.

Efficiency

- Minimize eye and hand movements, and other control actions.
  - Transitions between various system controls should flow easily and freely.
  - Navigation paths should be as short as possible.
  - Eye movement through a screen should be obvious and sequential.
- Anticipate the user's wants and needs whenever possible.

GENERAL DESIGN PRINCIPLES

Familiarity

- Employ familiar concepts and use a language that is familiar to the user
- Keep the interface natural, mimicking the user's behavior patterns
- Use real-world metaphors

Flexibility

- A system must be sensitive to the differing needs of its users, enabling a level and type of performance based upon:
  - Each user's knowledge and skills
  - Each user's experience
  - Each user's personal preference
  - Each user's habits
- The conditions at that moment

GENERAL DESIGN PRINCIPLES

Forgiveness

- Tolerate and forgive common and unavoidable human errors
- Prevent errors from occurring whenever possible
- Protect against possible catastrophic errors
- When an error does occur, provide constructive messages

Immersion

- A state of mental focus so intense that awareness and sense of the real world is lost
- Foster immersion within tasks

GENERAL DESIGN PRINCIPLES

Obviousness

- A system should be easily learned and understood:
  - What to look at
  - What it is
  - What to do
  - When to do it
  - Where to do it
  - Why to do it
  - How to do it
- Flow of actions, response, visual presentations, and information should be:
  - In a sensible order
  - Easy to recollect
  - Easy to place in context

GENERAL DESIGN PRINCIPLES

Operability

- Ensure that a system's design can be used by everyone, regardless of a person's physical capabilities.

Perceptibility

- Ensure that a system's design can be perceived, regardless of a person's sensory capabilities.

GENERAL DESIGN PRINCIPLES

Positive First Impression

- Create a positive first impression of the system.
  - Points of prospect
  - Minimal barriers
  - Progressive lures

GENERAL DESIGN PRINCIPLES

Predictability

- The user should be able to anticipate the natural progression of each task.
  - Provide distinct and recognizable screen elements
  - Provide cues to the result of an action to be performed
- All expectations should be fulfilled uniformly and completely.

GENERAL DESIGN PRINCIPLES

Recovery

- A system should permit:
  - Commands or actions to be abolished or reversed
  - Immediate return to a certain point if difficulties arise
- Ensure that users never lose their work as a result of:
  - An error on their part
  - Hardware, software, or communication problems

Responsiveness

- The system must rapidly respond to the user's requests.
- Provide immediate acknowledgment for all actions:
  - Visual
  - Textual
  - Auditory

GENERAL DESIGN PRINCIPLES

Safety

- Protect the user from making mistakes.
- Provide visual cues
  - Reminders
  - Lists of choices
  - Other aids as necessary

GENERAL DESIGN PRINCIPLES

Simplicity

- Provide as simple an interface as possible.
- Five ways to provide simplicity:
  - Use progressive disclosure, hiding things until they are needed
    - Present common and necessary functions first
    - Prominently feature important functions
    - Hide more sophisticated and less frequently used functions
  - Provide defaults
  - Minimize screen alignment points
  - Make common actions simple at the expense of uncommon actions being made harder
  - Provide uniformity and consistency

GENERAL DESIGN PRINCIPLES

Transparency

- Permit the user to focus on the task or job, without concern for the mechanics of the interface.
  - Workings and reminders of workings inside the computer should be invisible to the user

Trade-Offs

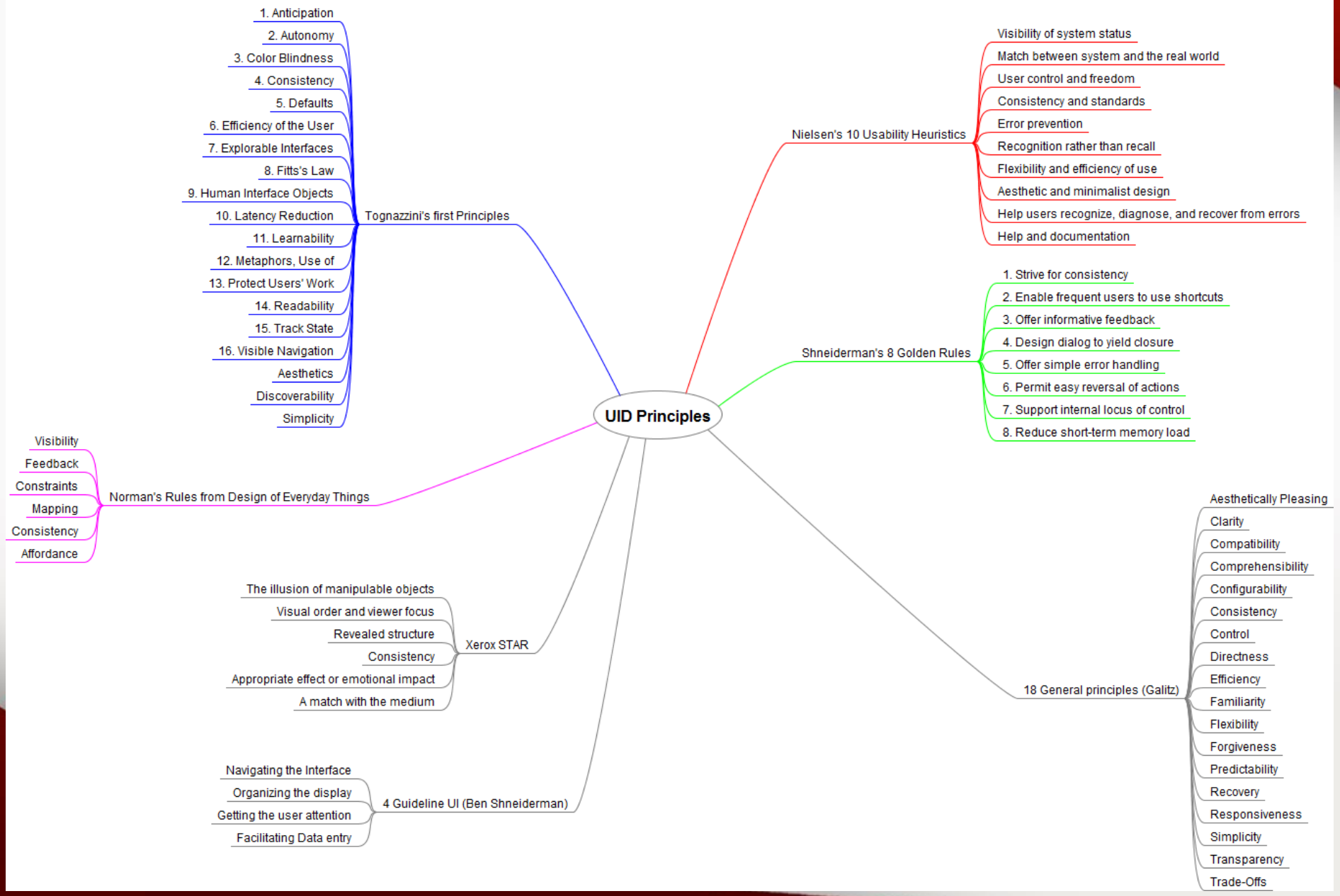
- Final design will be based on a series of trade-offs balancing often-conflicting design principles.
- People's requirements always take precedence over technical requirements.

GENERAL DESIGN PRINCIPLES

Visibility

- A system's status and methods of use should be clearly visible.
- Improve visibility through
  - Hierarchical organization
  - Context sensitivity

Cari Tahu tentang Principle lainnya?



Mainan IUXD #1

1. Buatlah kelompok berisi 3 mahasiswa
2. Temukan Web dengan kategori **Berita/News** (Web nasional atau international)
3. Kemudian berikan komentar Anda mengenai User Interface Design dari web tersebut. Gunakan pendekatan "**18 General Principle UID**" untuk argument pada komentar Anda tersebut
4. Pastikan **seluruh point pada 18 prinsip** tersebut sudah Anda komentari. Jika **Buruk** maka jelaskan, jika **Bagus** maka berikan juga penjelasanya.

Quote of the day

"Design is not just what it looks like & feels like. Design is how it works."

– Steve Jobs

pax|media