HCI Analysis Report

The Egyptian Tansik Government Website

(Redesign Project)

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1. Introduction & The Goal of Interaction

- Old Website: Primarily focused on being *Useful* (it provided the service), but failed in *Usability*. The interface was a "text-dump," forcing the user to search through unstructured data.
- New Website: Successfully integrates all three. It is Usable because it reduces the distance between the user's thought and the system's action, and it is Used because the professional aesthetic builds trust in a sensitive government service.

2. Human Information Processing (The User)

A. The Model Human Processor (MHP)

The redesign optimizes the three subsystems of the human brain:

- Perceptual System: The new design uses Visual Hierarchy (larger fonts for headings, distinct colors for buttons). This allows the student to perceive the "Start" button significantly faster than in the old cluttered version.
- Cognitive System: By grouping services (High School, Technical, etc.) into distinct boxes, the system matches the human's Mental Model of how education levels are categorized.
- Motor System: In the old site, links were small and close together (Fitts's Law violation). The new site uses large "Cards" and buttons, making them easier to click with a mouse or tap on a mobile screen.

B. Memory (Sensory, Short-term, and Long-term)

- Reducing Load on Working Memory: The human "scratch-pad" memory is limited (7 ± 2 chunks). The old site required students to remember which link was which while scrolling. The new site uses Icons to represent categories, which triggers Recognition rather than Recall. Recognition is cognitively "cheaper" than recall.

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3. The Interaction Cycle (Norman's 7 Stages)

A. Bridging the Gulf of Execution

The Gulf of Execution is the effort a user must make to figure out how to do something.

- Old Site: High effort. The user had to read a list of 20+ blue links to find the entry point.
- New Site: Low effort. The use of "Primary Action Buttons" (Green/Blue buttons) tells the user exactly where to click to "Execute" their goal.

B. Bridging the Gulf of Evaluation

The Gulf of Evaluation is the effort to understand if the action worked.

- Feedback: The new design uses "Status Labels" (e.g., "Registration is Open" or "Closed"). This provides immediate feedback to the student's evaluation system, preventing them from trying to enter a closed service.

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4. Interaction Styles & WIMP

- From Text-Based to WIMP: The old site was a hybrid of "Navigation links" and "Question/Answer." The new site fully adopts the WIMP (Windows, Icons, Menus, Pointers) style.
  - Icons: Used to categorize "High School" vs "Diplomas."
  - Menus: The navigation is now structured logically at the top, rather than scattered throughout the page.
- Form-Fill Enhancements: For the coordination process (Inputting grades/colleges), the new design uses better Form-fill ergonomics. This includes better alignment, larger input fields, and clear labels, which minimize "Slip" errors (unintentional mistakes).

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5. Design Principles & Ergonomics

- Understanding Materials: The "materials" here are the web browser and the student's anxiety. The redesign uses a clean white background with calming blue accents, which is a standard Ergonomic Convention for official/legal websites to reduce user stress.
- Consistency: The new design maintains a consistent layout across different stages. Once the student learns how to use the "High School" card, they automatically know how to use the "Results" card because the design patterns are identical.

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6. Conclusion

The redesign is a textbook example of moving from System-Centered Design (where the computer just shows what it has) to User-Centered Design (where the interface is built around how the student thinks). It successfully reduces cognitive load, minimizes the Gulf of Execution, and improves the overall human-computer interaction through better visual ergonomics and memory-management strategies.