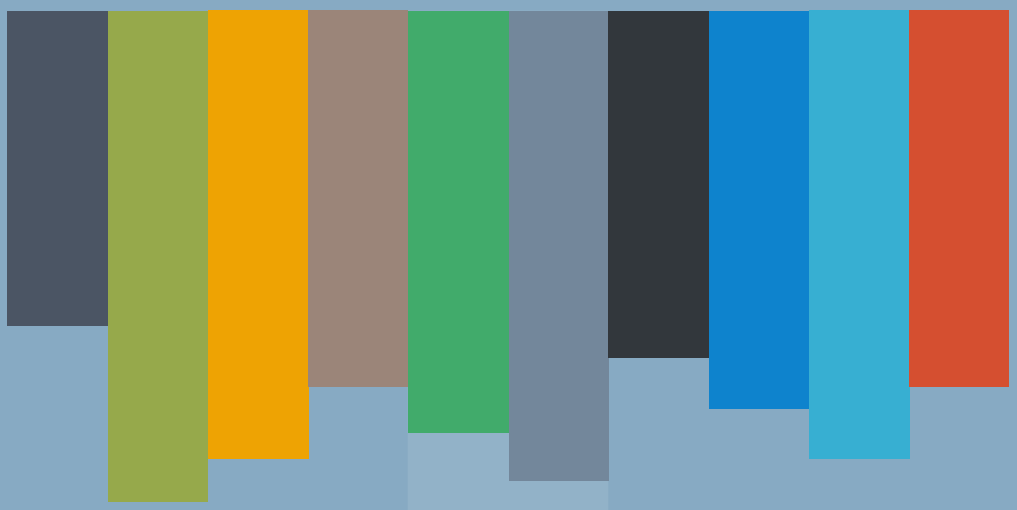
10 PRINCIPLE • CHEATSHEETS

+ USABILITY ENHANCEMENTS

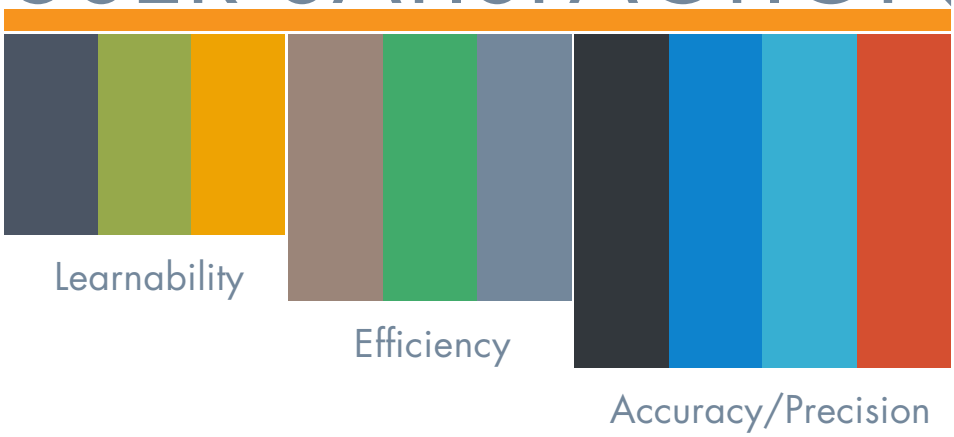


INTERNAL DOCUMENT

USABLE

=

USER SATISFACTION



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User Cognition

User Familiarity

User Predictability

User Cognition

EMPOWERING USERS
the ability to process information

\+ inviting with comfort to adapt

\+ subjectively pleasing

= Learnability

> People will forget what you said.
> People will forget what you did.
> But people will never forget how
> you made them feel ...

User Familiarity

EMPOWERING USERS to
easily recognize the environment

+ intuitively smooth flowing

+ subjectively common to expertize

= Efficiency

The less effort, the faster and more
powerful you will be …

User Predictability

EMPOWERING USERS
to master task flow with trust

+ proactive anticipation

+ confident precise engagements

= Accuracy

> If we want users to like our product we should design it to behave like a likeable person: respectful, generous and helpful …
> … and not create a grumpy salesperson.

User Cognition

1

DON'T MAKE USER THINK:

The most appropriate approach to avoid users to think is to make things as obvious as possible; understandable as those of everyday objects while fulfilling user expectations. The product should be a tool that users can relate to without any elements of surprises.

2

REDUCE MEMORY LOAD:

To avoid memory overload is to provide the information as they are necessary without clutters and unnecessary distractions. Users depend on the product as a stress-free productivity tool to perform their task efficiently.

4

SIMPLE INTERPRETATION:

The users' involvements that are straightforward and graceful are easier to be interpreted and accepted. A product that is well communicated with keen logics that are well thought through, are the typical expectations of a normal user and a regular observer.

3

ELIMINATE COMPLICATIONS:

Be empathetic and be the role as a user. Any misbehave actions by the product in the user journey is most likely NOT the FAULT of the user. Avoid developing passages that leads to confusion at all cost. The default entry screen "the blank state" should not be blank; a well thought out blank state acts as a way finding agent, helping users take their first few steps (engaged) with the product.

5

REDUCE INFORMATION OVERLOAD:

To help reduce user information overload, the product should provide a clear set of defined rules in organizing the objective needs in data distribution. Separate usable information from misinformation or non-information to prevent information overload. Provide practical guidance for users towards a structured and focused task journey. Present comprehensible information is more receptive for user to learn a product.

6

REDUCE COMPLEXITY:

To reduce complexity and decrease difficulties for users; reduce the number of dependent factors in an action that needs to be dealt with at one time. Partitioning functional actions clearly and avoid nice to have functionality that are secondary. Provide a clean visual environment and make use of white spaces and contrast to reduce visual noise; keeping visual noise to a bare minimum will make an interface seem easier to explore.

7

FUNCTIONAL:

Typically 20% of the functions are used 80% of the time; focus on the operations of the products specified in the functional requirements; setting goal oriented functionalities by prioritizing the non-essentials would help present a usable product that is functional. Priorities are always given to the context and content; avoid technical jargons and be specific to provide comprehensible information users are looking for during the operation in a least confusing way.

8

CONSISTENT:

It is essential to remember the distinction between product functions and product features. Functions are the "product's answer to the set of user tasks"; features are the "user tools" inherent in the product used to perform the functions. Consistent and uniform product operations, performance, behaviors, interactions and visual communications are all expectations specified by the user requirements to perform an operation. Requirements needs to be prioritized according to their importance. A list of the most important requirements to user's fundamental needs should answer questions about the important use cases that best represent the common values across all product solutions.

9

READBILITY & FINDABILITY:

Information is meaningful data. Data are the building blocks that become useful information once they are well processed and well organized in ways that help understanding. The ease of information comprehension is the core factor that supports information analysis towards valid decisions. As such, user task heavily relies on visual communication design and functional design to find and read information. The product performance in processing data driven by user interaction design, information architecture design, information systems design and technical designs greatly affects user performance. Therefore, solid structural data that are clean from errors and reliable at all levels of design helps the readability and findability by both the user and the system.

User Predictability

User Predictability

10

ERROR FREE:

There is almost no perfection as long as elements of accident exist. For it being human cause errors (intentionally and unintentionally) or faults that goes unnoticed for years until a right set of circumstances arises; users shall not be penalized, left to feel guilty or be frustration for the errors. All preventive measures must be taken to continuously design an error- tolerant product and service.

+ USABILITY ENHANCEMENTS

INTERNAL DOCUMENT

: USABILITY

User-Friendly • Ease of Use and Learnability • Usefulness

> Ease of use may be invisible,
> but its absence isn't.

DON'T MAKE USER THINK:

Strive to create the products that are self-evident, obvious, or self-explanatory; hence engaging the initial learning pocess.

Avoid inflicting unnecessary frustration at 1st glance.
(e.g. reduce noise and confusion)

Avoid forcing users to make decision immediately that would interfere with user finding information they are looking for.

REDUCE MEMORY LOAD:

Create a common recognizable product; avoid requiring users to remember all the steps and actions.

Create product features or elements free from user short-term memory. Make the product handle tediousness and help improve user choice performance; provide and balance the visual cues without clutters at first glance.

Use real-world metaphors.
(ie. use similar references of everyday objects with logic instead of new inventions)

ELIMINATE COMPLICATIONS:

Strive for the best user journey; shorten the distance of user goal with the fewest steps.

Things in product that looks different should act different; thing that looks the same should act the same.

Create the product that results with user in a good mood as they performed and completed their task.

User Cognition

SIMPLE INTERPRETATION:

Eliminate product dialogues that contain irrelevant or rarely needed information.

The product should always keep users informed through appropriate feedback within reasonable time.

Strive to perform real-time data validation as the user fills out entries to reduce ambiguous error.

User Familiarity

See our Intranet for the: **INTERMEDIATE & ADVANCE** checkpoints

REDUCE INFORMATION OVERLOAD:

Prioritize essential and leading information that helps speeding up a given task to be completed.

Appropriating practical information as Necessary - Present Information that is helpful and suitable for the specified task only.

Distribute information as a structural consistent manner and within the common expectations for a task.

User Familiarity

See our Intranet for the: **INTERMEDIATE & ADVANCE** checkpoints

REDUCE COMPLEXITY:

Avoid redundancy in all dialogs between user and the system.

Clarify or define dataset personalization to avoid redundancy in visual dialog.

Clarify the user usage pattern and target to define and cater user's task prioritization.

07 FUNCTIONAL:

Evaluate the specific functions made available to the overall product improvements and user's work performance.

Determine the shortest flow of interactions between user and the product features, and the operations needed to be performed by the system. Apply the K.I.S.S. Principle.

Avoid inventing radical excessive functionality; inventive customization can decrease the usability of a product; it is critical to balance functionality and common habits in the functional design as necessary.

User Predictability

See our Intranet for the: **INTERMEDIATE & ADVANCE** checkpoints

CONSISTENT:

Consistency helps reduce leading users to commit new mistakes or confusion; which reduces support and training cost.

Component should have the same development criterions, considerations of interactions, and dimensions that satisfy the control process by the user across all products.

Avoid implementing new visual elements and functional treatments that is outside the normal practice of existing modules to sustain the overall predictability, reliability and impression of professionalism.

READBILITY & FINDABILITY:

Cater for 1024 x 768 viewable area as the suggested minimum screen requirement for web based development.

Strive to help users take in information efficiently and scan read quickly; users must be able to acknowledge all information and absorb it easily at a glance.

Manage the page structure according to the information to be displayed; be sensible to divide the contents in logical structure and comprehensible small chunks.

Develop a distinct hierarchy; it refers to the difference between header and data contents, with the proper applications of contrast, colors, and spaces of the textual and visual elements.

Cater all core contents and information to the top portion of the visible screen; Horizontal Scrolling should be avoided except for essential massive Data (Tabular) presentations.

User Predictability

See our Intranet for the: **INTERMEDIATE & ADVANCE** checkpoints

ERROR FREE:

Predictions are the acknowledgment of Risk Management and safeguarding of an error tolerant product. Proactive mechanisms are needed to first prevent errors and then to identify them when they do occur, to ensure high-quality products.

Strive to make the product difficult for users to take invalid actions; Limit user choices, provide clear examples for data entry, present appropriate selection options, auto-fill common entries that already exist.

Applications need a strong focus on all critical tasks and paths of the user journey; the focuses involves: the language used; alternate and recovery paths available; the error message structures with guiding tips towards proper exit; this is to provide an optimum use of the application without fear, loss of time and user efforts.

Anticipate and plan for the unexpected; consider the routes provided through the functionality and interface review; test and re-test on the choices provided that you did not predict.

User Predictability

See our Intranet for the: **INTERMEDIATE & ADVANCE** checkpoints

USABILITY PRINCIPLES • INTERMEDIATE & ADVANCE

+ USABILITY ENHANCEMENTS

INTERNAL DOCUMENT

DON'T MAKE USER THINK:

INTERMEDIATE

User should not have to think about anything except the actual decisions and challenges of the task at hand to be completed.

Avoid difficulties, fiddly or confusing task and steps overall to be completed by users.

Avoid occupying users with non specific related task and require excessive time to read irrelevant information.

Avoid overdoing with irrelevant displays of cuteness, attractiveness and overdesign for the sake of beauty.

ADVANCE

Tips:

Intuition can not be designed, but comes as influences and affects resulting from previous experiences and learned lessons.

Overdesign for the sake of beauty: Aestheticism is beyond the look and feel, and beyond the personal preferences of individuals.

Keeping Track of information: The product should make any information easy to locate, so users don't need to think about it.

Users should not have to think about keeping track of information they desire.

Strive to create product as the tool displaying the CURRENT STATE of the task being manipulated by the user; The product interface and the user's involved tasks are about manipulation and changes, it is about users "telling the product what to do and the product acknowledging the actions involved.

Avoid assumption of the caliber of all user are technically savvy.

REDUCE MEMORY LOAD:

INTERMEDIATE

Strive to create product features that rely on recognition, not just by recall and memories.

Strive to provide lists of frequently chosen items for selection in the product rather than just give users a blank entry field without leading indications.

The product should encourage visual clarity with organization and chunking.

ADVANCE

Tips:

Improve choice performance: Referred target magic number is "7" via Miller's Law.

Miller's Law: Observation that an individual normally can retain or process only seven give or take two (7±2) items (chunks) of information in their correct serial-order, in his or her short-term (15 to 30 seconds duration) or 'working' memory. (e.g.: Memory span is around seven for digits, around six for letters, and around five for words.)

Strive for progressive disclosure with context per actions; for every action there should be a reaction.

The product should encourage shortcut keys features and keyboard usage; once users are familiar with a product, they will look for shortcuts to speed up commonly used actions.

Uphold logical object-action syntax in helping user developing intuitions toward the product.

ELIMINATE COMPLICATIONS:

INTERMEDIATE

The user should always know what is happening with the screen and the system.

Things in the product should have its rightful location and a proper logical placement for user's needs.

Strive to engineer out the common misleading behavioral errors.

ADVANCE

Everyone makes mistakes; ensure error in the product to be fixable or recoverable and provide assistant.

Strive to eliminate redundancy or unnecessary inactive entries inputs.

SIMPLE INTERPRETATION:

INTERMEDIATE

Ensure to indicate to users the proper input format . Let them know what you're expecting to reduce ambiguity and makes filling up forms quicker.

Ensure that the product have visually style input fields so that it is very apparent which field the user is on.

Create the product that speaks the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms.

ADVANCE

Tips:

Irrelevant or rarely needed information: Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.

Familiar: Follow real-world conventions, making information appear in a natural and logical order.

Proximity: The concept of proximity is grouping. When there are groups of objects, user tend to see them as forming a group and to help imply importance and relationships.

Strive to locate key components in close proximity reduce the performance time required in completing sequential tasks.

All available contents are information; keep them direct, non-misleading and easily understood.

Avoid using color alone to convey important information.

Strive to present information in a format that does not require conversion by the user.

REDUCE INFORMATION OVERLOAD:

INTERMEDIATE

Features deployed as information handling agent should be targeted to reduce, filter and organize data as appropriate.

Feature values should help perform tasks on the user's behalf and not burden the user's performance.

Determine the most competent criterions of features and deployment for information handling.

ADVANCE

Tips:

Misinformation are those that inaccurate or misleading presented unintentionally.

Non-information are those that:
1) does not directly affect users
2) users do not need to know
3) has no value to users

Common expectations: Collections of and Built Legacies of primary repetitive behaviors to complete a task that provides satisfactory.

Burden: Added steps involved within the feature, should not increase the overall clicks to complete a given Task.

Providing clear and leading indications of user interactions or indirect feedback.

Selective information presented should help user learn the product to maximize perform and increase productivity.

Apply common and daily recognizable metaphors or guiding features that would help simplify confusions and increase learn-ability.

REDUCE COMPLEXITY:

INTERMEDIATE

Sustain or enforce a structural control of data distribution by precise identifier conventions.

Strive to provide convenience and visual cues when possible to help assist the user task flow.

Strive to construct visual architecture for scanning purpose rather than required deep focused reading.

ADVANCE

Tips:

OODA is a cognitive process of:
(Observe, Orient, Decide, and Act)

Focus only on the crucial items; simplify functionalities towards the necessities only; avoid the "Adding on Top" approach.

Identify repeated patterns of users to complete a common simple task and cater feature functions appropriately by ways of "Reducing", "Reusing" and "Recycling"; which also supports consistency of a product.

Ideate product features to support the core minimalistic approach; targeting quickest OODA loop.

The product overall should strive for the objective of empowering the user; not just speeding up the system.

FUNCTIONAL

INTERMEDIATE

The hierarchy of logical and meaningful functional needs must be established with objective performance criterions; determine the core necessities that would satisfy the specified functional requirements.

The auxiliary of non-high-volume nor highly structured functions should avoid adding complications to the user task flow.

Functionality is a core agent of any product that user expects to use to complete a set of tasks; the ease of use is the deciding factor that determines the characteristics of product success.

ADVANCE

Tips:

Options for example are universal abbreviations, default values but avoid useless bad defaults, pre-populations, auto-fills, or other forms of assistants.

Strive to maximize function accessibility and operation procedures based on user needs and expertise.

Strive to define subsets and present them in cluster forms.

Appropriate the flexibility of options to help improve user work performance.

Strive to create the product for role specific users that are task oriented with scenarios.

CONSISTENT

INTERMEDIATE

Avoid implementing behavior differences at the expense of saving a single click that breaks the accepted common expectation.

Users should not have to wonder what the words or actions mean; a platform convention to its meanings should be followed.

Visual cues and Functionalities in different situation should allow users to do things in the same common way and the system should behave as expected.

ADVANCE

Color is one of the most powerful cue to coherence and connection both within a page and across pages; clear and appropriate application of color is critical to building an effective standards.

Grid structure and persistent navigation should behave the same across pages within a system.

Background elements and fonts indicate belongingness within a system of information.

Strive to develop and accumulates small sets of reusable templates that adds values to a pre-defined bigger structure.

READBILITY & FINDABILITY:

INTERMEDIATE

A well organized and structured layout defines the pattern that is easily recognizable; it is a great visual aid to the viewer of which relationships are relevant to consider.

The layout is one of the most important visual attributes; an acceptable layout is perceived instantly and almost unconsciously.

The Layout aspects includes: horizontal and vertical alignment, positioning, symmetry, distance of information, distribution of white space, density of information, and the formation of basic patterns; A basic pattern forms a clear path of the viewing flow.

ADVANCE

Tips:

All of Line Height, Letter Spacing, Line Length and White Space Usage contributes to the readability of content; proper standard space allocations helps offset large amount of text and helps the user's eyes flow through the text; It also provides separation between elements within the layout.

Strive to distinct no more than 3-5 levels of text size hierarchy.

Strive to distinct no more than 7 color; as too much colors will cause wrong prior associations, distraction, tiresome, fuzziness, and becomes unreliable.

Avoid using wrong color combinations for foreground and background that also causes eyestrains.

ERROR FREE:

INTERMEDIATE

Strive to make the product difficult to take incorrect actions; Provide links and buttons to be distinctive with clear language, avoid technical jargon, and make dependent and relevant fields in close proximity.

Error-messages as part of the system design triggering user interactions, should inclusion a clear description and clear access to correct the problems.

Strive to make the product difficult for users to take irreversible actions, provide back-tracking capability, avoid dead screens; make use of confirmation in a meaningless way.

ADVANCE

Tips:

Be a yardstick of quality. Some people aren't used to an environment where excellence is expected.

Nothing hurts a new truth more than an old error.

All fixed set patterns are incapable of adaptability or pliability. The truth is outside of all fixed patterns.

Strive to maximize the key stages of defective performance: avoid user committing error, its detection, identification, correction, and resumption of the original task.

Determine a short response time and clear acknowledgement in case of faults; hypothesize a complete failure scenario journey.

Strive to manage key aspects of flawed system usage by: prevention, reduction, detection, identification, recovery, and improvements.