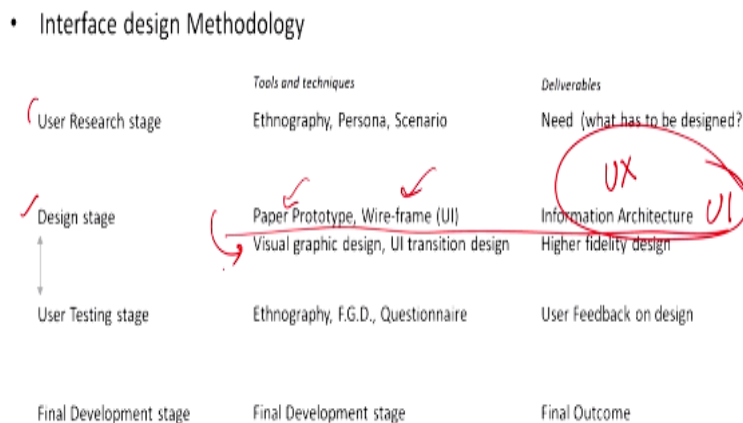


User Interface Design
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Lecture - 17
Visual Communication Design

Hello students. Welcome to the online NPTEL course, User Interface Design. In today's lecture we will discuss about the visual communication design details and how to design the frontend design and with the visual communication design part.

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So we have covered this, so if you look at the methodology, we have covered these parts. So user research we have talked about and we are right now in design stage and within the design stage we have talked about the information architecture, how to create the information architecture using paper prototype wire-frame which is the UI component, user interface or the where the user experience design part goes on. So this is the UI UX part.

Now we started discussing the visual graphics part of the visual communication design part and so we were talking about the high fidelity design and there we discussed about the typography, the contemporary design trends, the semiotics and today we will see few of the design details and how to create the overall image of the frontend design and we will talk about how the grid layouts in the visual communication design come into picture.

So all this design icons and content and everything how it can create a holistic visual palette within the user interface.

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- Interface design Methodology

| | Tools and techniques | Deliverables |
|-------------------------|---|--|
| User Research stage | Ethnography, Persona, Scenario | Need (what has to be designed?) |
| Design stage | Paper Prototype, Wire-frame (UI) Visual graphic design, UI transition design | Information Architecture Higher fidelity design |
| User Testing stage | Ethnography, F.G.D., Questionnaire | User feedback on design |
| Final Development stage | Final Development stage | Final Outcome |

So here we are focusing on the visual graphic design and high fidelity design and this is the last part of the high fidelity design and then we will move on to the user testing process and how to get the feedback from the users based on the UI UX component as well as the visual design components.

So feedback on how functional the design it is which is coming from the user experience perspective and how aesthetically whether it goes with the theme that is coming from the visual design perspective. Both the perspective will be tested based on the user's opinion. So that will be discussed in the later stages.

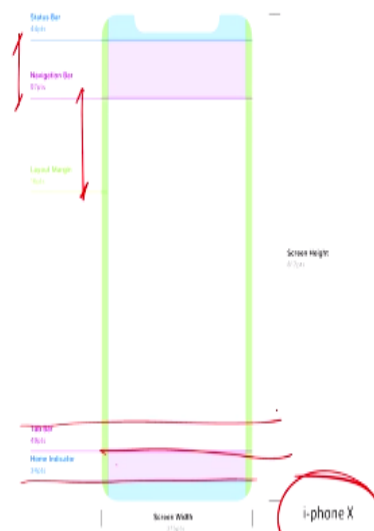
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- Visual Communication Design Detailing

So visual communication design detailing, how you do the detailing. We will just give few examples because the method and everything has been discussed earlier and all the theories. So let us take few examples of iOS platform which is skeuomorphism which has been discussed earlier and then material design by Google of android. So how intricately you have to think and what are the design details which you have to think about, everything we will just discuss with an example.

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- Grid and Design layout
ios design guidelines



So if you look at the iOS 6 and iOS 7, so they are minor design detailing change. So if you look at the overlapping of these 2 buttons of skeuomorphic style of iOS in different version, so they are actually dealing with the curvature of the corner and that has been changed. So that minute

precision also impacts the design detailing. So if you look at the overlapping that changes. And even in iOS everything is formulated when you look at the iPhone, this is in the iPhone x format.

So navigation bar is fixed, its dimension is fixed. Then the layout of the margin's dimension is fixed and the home indicators for all these icons will be over here and the tab bar, everything the design is fixed. So you have to follow proper guideline and when you design your website or mobile application, all these visual design guidelines has to be fixed beforehand and all these detailing should create the final design with a better design will be created by all this detailing.

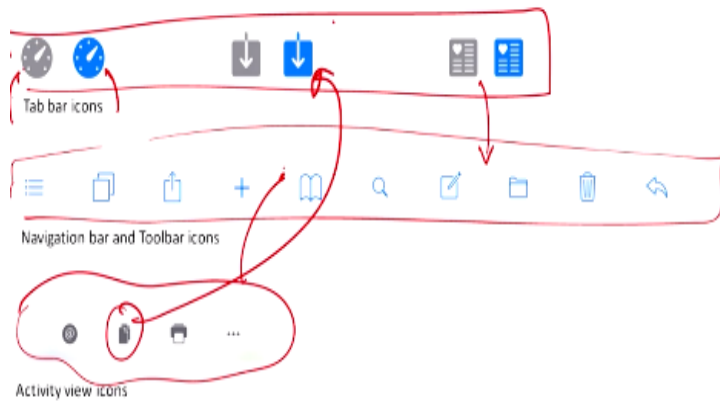
So if you look at the iOS design guidelines, so every taskbar, navigation bar, activity view bar everything is well delineated and people follow that. Even when you are designing a mobile application or mobile application based on iOS platform, you should confront to the design guideline of skeuomorphic style. So you need to have a very precise eye and look at the minute detailing of the each and every design style.

So this style of iOS and material design what I am discussing right now is previously fixed by the designers of those brands and when you design your own style or website, every detailing has to be fixed before and all the icons and typography everything should fit with the holistic design palette which you create before. So from mood board you create the design palette and you select specific typefaces, specific icon, specific color and texture and throughout the website you have to follow that.

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- Grid and Design layout

ios design guidelines

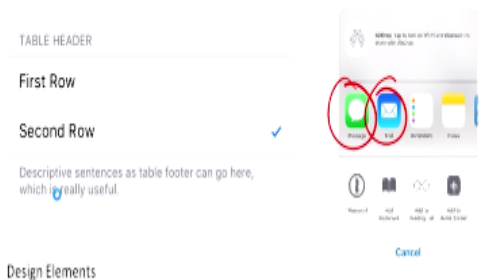


So if you look at the tab icon, so this is active and this is inactive tabs of different dashboards, downloads and other things and this is the navigation bar and if you look at different various icons there are also a visual simile into that and also the activity bar. So everything has a similar visual style which you can correlate and which does not change much and together it creates a visual simile.

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- Grid and Design layout

ios design guidelines

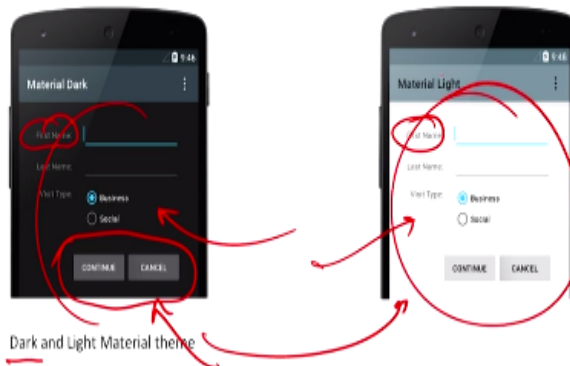


And also if you look at the different other design elements, so you can look at this icons of which is designed for other applications, for example message, e-mail and other different applications which has a similar curvature of different icons and tabs. So that creates a visual synchronicity within the other design elements.

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- Grid and Design layout

Material design by Google [used in Android platform]



Now if you look at the material design by Google design team which is mostly used for android platform. So there also within the android platform they have a particular visual style. So if you are designing on the android platform you have to follow that particular design vocabulary. So here there are examples of dark and light material thing. So android uses this material design which is by Google.

So you can see these tabs has a sharp edges and based on this light background and dark background, the visual design changes a little bit. So you can see, so they have gone for a neutral grey typefaces so that which will be visible in both dark and light background. And you can see the differences between the visual style of material design. And the skeuomorphic style of iOS platform.

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- Grid and Design layout
Material design by Google [used in Android platform]



Grid and Design elements

So these are the material design style template. Also they have a particular grid system which they follow. So these things you can find out online. And also there is a grid system for the iOS platform.

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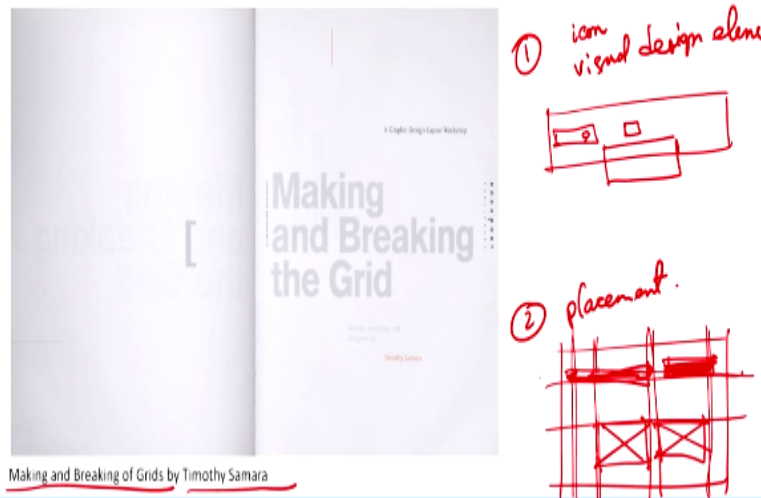
- Grid and Design layout
ios design guidelines



So this is the grid and within that also there will be minor grids which divides this mobile phone into different parts. So that grid is also there. And here all the specifications of the grids are there and you can check this online. So when you design your website, you have to fix a grid which will divide the full page of your website layout in different segments and also you have to design the colors and themes of the icons and details of the icons and which you will put in the design.

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- Grid and Design layout



Now there is an important book which you should follow which is by Timothy Samara. The book's name is Making and Breaking of Grids. So grid layout is very important and that grid should follow in different hierarchy of your design. So if you are launching on the homepage and you are going to the next page, this homepage and the next hierarchy of the different pages when you go deep into the information architecture and these design should not look very different.

So one identifying factor is the icons or the visual design elements, the small elements of the icons tabs, dropdown menu and that is the microelement which you can see different elements. So there can be search engine, there can be tabs, there can be dropdowns. But another important part is the placement of these elements. So that will be defined by the grid of the website. So where will you place these elements, they have to have a similarity in the next page.

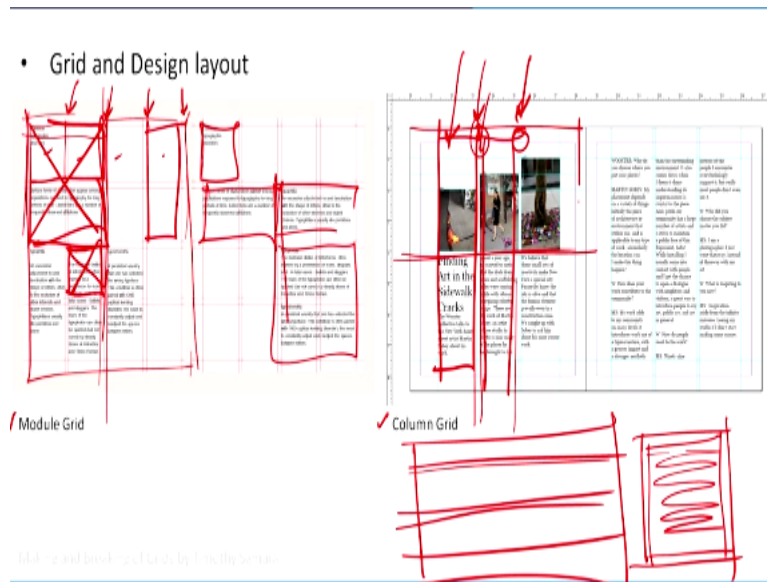
When you go to the next, click the next button and you go to the next stage, deep inside the information architecture, the placement should not change and it should have a similarity with the previous page where you have seen. So that is why breaking the full page layout in different grid and placing all these elements consistently will create the holistic combination of the website or the mobile application and it will have a unified user experience.

So it will not shift and people will also expect the next button to be somewhere in the similar space or the same space. So you should not shift the button and few of the design elements

remains constant and then within the grid few elements falls within a particular grid system. So to combine all this user interface or the information architecture with a unified system, this grid layout which is the macro system which combines every small elements into a holistic unified whole is the grid system.

So you need to understand the importance of the setting up a grid before you start putting all this content or the text and other design elements into the design. So first you have to make the grid. And here if you read the book, so there are mainly 4 grid system. One is the manuscript grid.

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Manuscript grid is nothing but when you leave spaces from all over 4 side and you use this whole body of the website or the web space in a one single go, but generally we do not use that in the website so the use is very less. The 3 important grids are module grid, columnar grid and the hierarchical grid. So modular grid is when you divide the space into equal modules. And so this is called the main body of the information will be here and this is called the gutter space.

We will discuss about the morphology of the grid system in next few slides. So here each and every module is same. So that is a modular system of dividing the whole space and the module might not be a square. Here the example is square. It can be even rectangle and you can divide the display area of the interface into rectangle or square of same size and equal gutter space. So the gutter space between them are not changing and the modules are of same.

Now what you can do is if the information is much you can join two module but you have to maintain this gutter space in the next page. Or you can join 4 module or you can join vertically up and create different content. For example here the text is like this and here the total area is used for that and here only one grid is used. So based on the content volume or the size of the photograph and image or other design element it can be changed.

But while you were using this grid system when you launch to the next page, people will read this psychic line or the visual lines which will create a psychological impact of unified whole of all this different pages. So this same system can also be used for graphic design. So when you are designing a booklet or book layout design so InDesign or Photoshop, so you should create this kind of grid. It can be columnar grid, it can be different kind of grid.

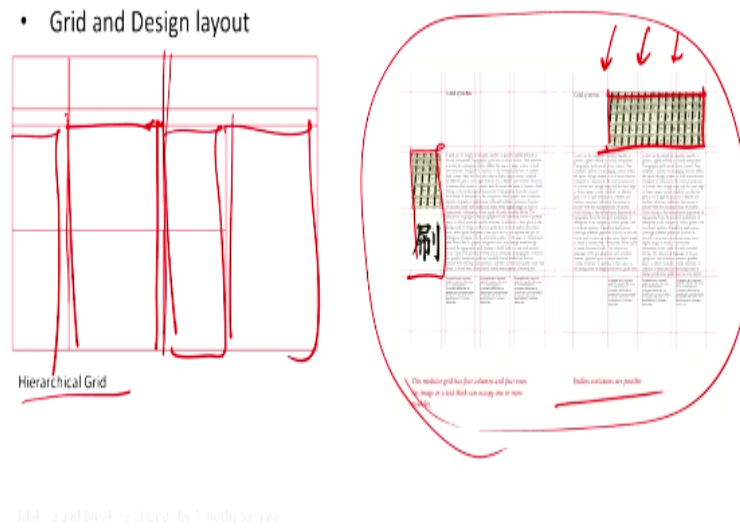
But that grid should be followed throughout the book so that, that book looks, all the pages of that book looks from the same book. So another type of grid is the columnar grid. When you just create the column or straight vertical column you can also create row. So columnar grid when it is on the vertical line, this is columnar or it can be also row based thing. So when you just divide the page into either horizontal or vertical segments.

So you just create those horizontal or vertical segments with a gutter space in between them. So this is the gutter space. There is only a gutter space in the horizontal direction. So this might not be there when this is a columnar grid. And in columnar grid, the different columns might be of different size based on the content. Here it is equal in all the cases. But it can also differ. But generally you should avoid changing this gutter space, the width of the gutter space that creates a visual imbalance.

But you can do that based on the visual need but generally it is the same, the negative space. So here in the module grid, so this is acting as a figure and this gutter space with the white space in the periphery is acting as a background. That will always be in the background and no content will be there. If you join this then that becomes a bigger figure and then the gutter space acts as a

background. So here this column structure is acting as a figure and then the gutter space with the peripheral space, white space is acting as a background.

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The other style is the hierarchical grid. When the information in the website are of different value, of different hierarchy then you might create a hierarchical grid where each and every grid is different. But that hierarchical grid in the homepage or when you go to the next page should follow. So hierarchical grid, if you start designing with hierarchical grid when you launch to the next page, it should not shift to the modular grid or columnar grid.

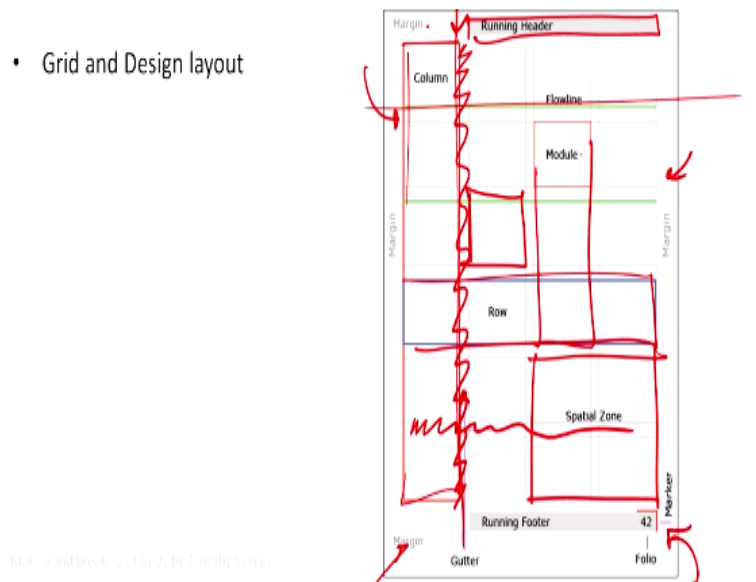
So if you are selecting a modular grid, you should follow the modular grid throughout your website or application and if you are creating columnar grid you should follow that throughout and the hierarchical grid should be followed throughout. It might change. So if you create these lines in the next design it can come as a column if you want but all this design element, the line and the grid should not change. The position of the lines should not change drastically.

So you might shift the grid from hierarchical to columnar and even if you want to join this modular grid as a column but that you can do in few cases but the lines from where the gutter spaces are going that should not shift in the next page. And also this is an example where through a modular grid it can also create a different hierarchy. So there are endless various possibilities there with the different grids.

But the main thing is the gutter spaces and the guidelines should not shift. So here the hierarchy is achieved based on when you are joining 2 grids together and it can be in different direction. So that hierarchy can be achieved in different other type of grid system as well. So this is the morphology of the grid what we can, how the grid can be divided.

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- Grid and Design layout

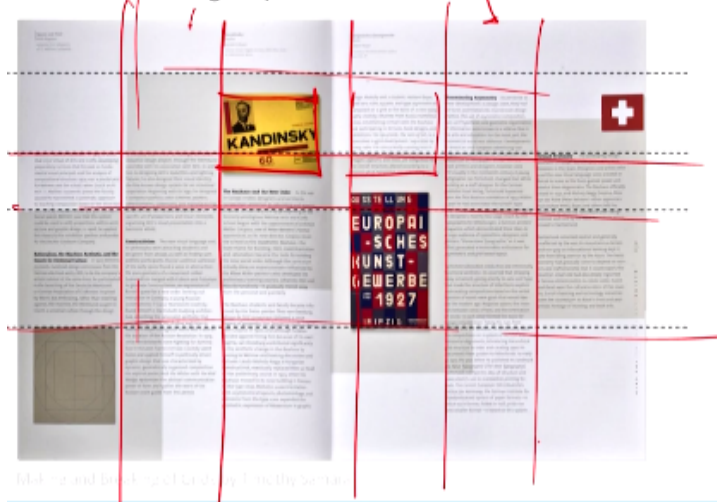


So this is a column. So in columnar grid this acts as a one unit. Or in columnar grid if it is a horizontally going so it will act as a row. So this is a row of the grid space and then you create margin from all the sides which is the negative space. No information and no tab, no icon will be there on the margin in any cases. And then there can be a running header which can be on the margin and which will be constant and some header information is going on.

And then this, the flow line, horizontal and vertical flow line and this space is the gutter space which is the negative space between two modules or two columns or rows. So these spaces these all spaces are called gutter spaces so which divides the grid and the line between two flow lines. So this can act as a special zone and it can be one just single module or two modules. So that depends on the content of the user, so how big that is.

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- Grid and Design layout



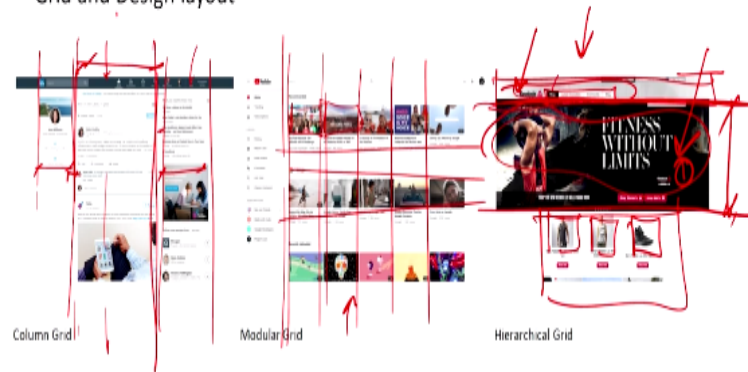
So this is one screenshot of the book, Making and Breaking of Grid by Timothy Samara. So here within the book layout also, if you open the book, this is one page and this is the other page and there is a continuous grid line going on. So the author is talking about the Kandinsky's Bauhaus style of design and Swiss style of design and then if you look at the book layout, page layout all this flow lines are going horizontally as well as there are vertical lines.

So if there is a pictorial, the graphics is there or even the text body everything is following a line which creates a unified composition of the book. And when you create the website, similar unified composition has to be created so that it does not look chaotic while people will read the website. So it is very important for the user experience design perspective.

So all the information should be presented to the users in a very simplistic way so that to decrease the chaos this grid system will be very helpful. So they are some examples of column grid, modular grid, and hierarchical grid in the website.

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- Grid and Design layout



So if you look at the LinkedIn website, so this follows a columnar grid. So this is main information column of the person's profile and then the detail newsfeeds comes over here and the scroll is happening in this grid. So you can see the column's width are different based on the main information content because this is the main information what you look at.

So that is widest, has the most width so that the more information is there and especially the gutter space is almost similar. So this is an example of a column grid system. And generally we see the column grid system because row grid system does not have the option to scroll like that. So column goes on like this and you can scroll down. And the module grid system can be the example of YouTube because the type of the website is there are different icons pops up of different videos.

So modular grid is a better option for them. So that is why they have gone for that. So when you click on the next page or the next search, all these modules will, the spacing of this module will be same and the next video will come. So they are following this gutter space and all his modules and then within that the information changes. Other example is the hierarchical grid system. So if you look at Reebok's website so this has a hierarchical system.

So main Reebok's icon the other tabs which shows the home shop and other tabs are there. So this is the first grid and the main photograph of different shoes and in which segment the shoes

are that is the widest grid so that it attracts the customer's view and all these detailing are on the smaller grid which comes as a module on the next hierarchy. So there are, all the informations are there. You start reading from there.

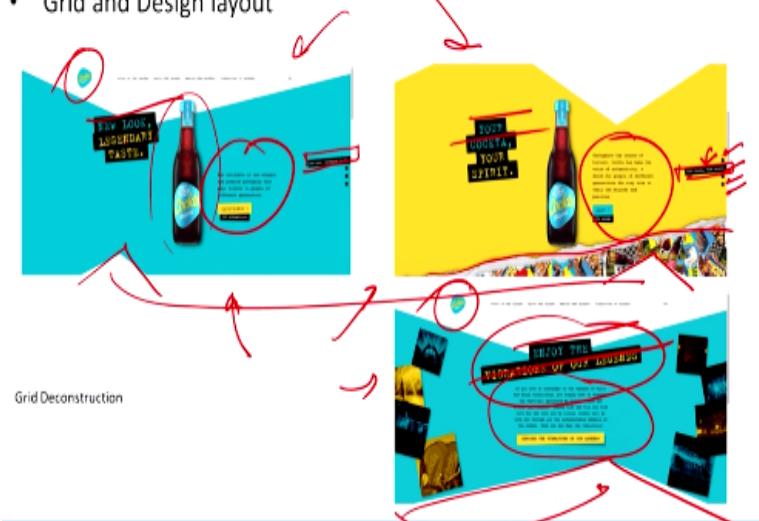
But this becomes the highest hierarchy because this becomes constant, the Reebok's website. Because you already know you are on the Reebok's website and this attracts the user because they want to showcase their product and then the next level of hierarchy is the all the detailed elements of the product. So this is the example of a hierarchical grid.

And there can be another options where you do not follow a particular straight lines, horizontal and vertical straight line and your grid changes in different when you launch in the different page. But the holistic style is maintained through few elements can be similar and the typefaces, color palette that can be similar in the different website and the grid shifts. So that creates a dynamism in the website.

And also attracts users perspective and that you should not overdo it because that creates lot of disturbance but in few cases when you want to gamify the user interface or the UI transitions are very interesting, you want to make it very interesting that time you can do that and so this can be a deconstructive grid or the grid deconstruction. So the grid shifts, the main grid shifts and it changes.

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- Grid and Design layout



But if you look at this website, this website is taken from the awards.com where you can check that website and all this interesting websites will be put up there. So this is a award for different interesting websites which has high, which is good in UI UX and visual communication design. So you can visit that website, awards.com which hosts different websites and they also talk about the winner of the month and year.

And so this is one of the website showcased in the awards.com website. So in this website when you can look at, so these are different pages of the website. So you can see a visual simile which is the yellow and blue combination. So that is consistent in each and every webpage but the grid system is changing. And few of the other parts of the website is same. So the product is always visible on the center.

The main logo is visible in the same places if it is there and the typography and everything has the same typography but their inclination is changing over the different, when you come to the different pages. So when you launch, this is the page. And when you go to the next, so it goes down. So that inclination is tilted but it goes down in different tabs. So you can understand what is your position, in which hierarchy you are and different design elements comes into the website.

And also if you look at the negative space that changes overtime and that shifts from one side to the other side. But that creates a lot of, this is visually heavy and lot of design elements are there. So that you have to, you should not overdo and it takes lot of time to users to read. Maybe that is the intention of this website so that their eye stays within the visual design part of the website. And if you look at the content of the page in particular, each and every page is pretty low.

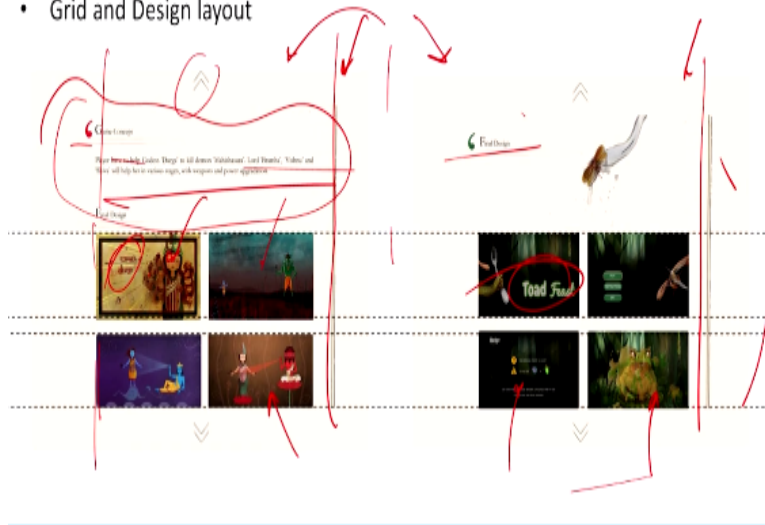
So that is why the visual communication part is augmented. If the page has a lot of content and the user has to read lot of element then (()) (26:25) this and breaking the grid might not be a good idea. But in this case this makes the website more interesting. And when you have a different kind of design element, different style of design element, in few cases you have to do that and then following a grid can give you a better and the one way of combining all this design element.

Sometimes we cannot stick to a particular similar kind of design element. For example we cannot stick to a particular color. We might not stick to a particular design style but to combine all this different element which apparently might be eclectic of different style, to combine them in a total holistic unified whole grid can work as a good example. So this is two of the slides from my design portfolio.

This design portfolio when I was designing it each and every design had a different visual style. So their colors were different, their design style was different. So I had to go through only through this grid layout. It was combined together and the typefaces which are used around to describe the project was same.

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- Grid and Design layout



So you can see the same grid lines are followed over here and the same modular elements are followed and another style which I have adopted is, I used a color which I overlaid through each and every style. So if you look at, so this has a very different style which is derived from Indian vernacular art form and Indian traditional style and pattachitra. And this is a very digital style, digital graphic style. So it was totally different.

So this color was overlaid on top of each and every theme so that they do not look very different from each other though the color is very different and the typefaces were also all different. So that there was a big negative space or the background was created to minimize this impact of this design so that where I can write about the design element and there I used same typefaces and if you look at, the design style is similar.

So there was a sketchy elements which is around this design which also dominates. So in that way and also through the grid which is followed in each and every page the portfolio looks like one part of the book. So in many cases, it can be a showcase of different design elements. The photographs might look different. So these are many ways to combine them together so that in totality it looks a unified design.