

## **Human Computer Interaction (Hindi mein)**

**Professor Rajiv Ratn Shah**

**Department of Computer Science and Engineering  
Institute IIT Madras**

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Namaskar saptah do ke is ank mein aapka swagat hai. Ismein hum Human Computer Interaction ke design ke aspect ke baare mein baat karenge. Isse pehle abhi tak pichle saptah mein humne kya discuss kiya tha uske baare mein ek jaldi se charcha kar lete hain. Humne core structure aur objective ke baare mein baat ki thi. Humne yeh bhi discuss kiya tha ki humein design padhne ki zaroorat kyun hai? Humne ek achhe design aur bure design ke baare mein baat ki thi. Aapke vyavaharik jeevan mein kaise aap uska prayog karte hain. Kaise aapka jeevan usse effect hota hai? Uske baare mein humne baat ki thi. Humne SCI ke baare mein baat ki thi. Kya Human Computer Interaction hota hai? Kaise manav aur computer ya aur anya upkaranon ke beech mein ek sahaj prakriya hoti hai jisse ki manushya apna kaam kar paata hai. Humne ek sample SCI project ke baare mein bhi charcha ki thi aur humne ek tutorial jo ki good design aur bad design ke upar hai uske baare mein detail share kiya tha. Chaliye fir ek quick recap le lete hain. Human Computer Interaction ke baare mein humne kya padha tha? Human Computer Interaction ke madhyam se hum ek aise thoughtful design ko banane ka prayaas karte hain jismein user interface creation of intuitive system jo ki ek bahut hi sahaj system hona chahiye. Aasan hona chahiye use karne mein aur jismein alag-alag tarike ki jo bhi zarooratein hain aapke upyogkarta ki unko include karna chahiye aur jisse ki SCI aapke human potential ko zyada se zyada badha sake. Wah upyogkartaon ko alag-alag karya ko kushaltapoorvak karne mein madad karta hai aur unhein prabhavshali tarike se seekhne mein bhi madad karta hai. Humne yeh bhi baat ki thi kaise woh vartalap kar sakta hai. Kaise woh sahayata aur saath mein kaam kar sakta hai bahut aasani tarike se aur yeh ek mauka deta hai us poore karya ko bade aasani se sahaj tarike se kushaltapoorvak prabhavshali tarike se karne mein SCI ke madhyam se jo ki anyatha itna aasani se ho nahi sakta hai. Yeh keval individual capability ko hi nahi badhata hai. Yeh humein ek collective tarike se saath mein hamare samaj ko, hamare maashre ko technology ki madad se usko empower karne ki koshish karta hai. Creativity ko badhava deta hai aur navachar ko bhi badhava deta hai. Jisse ki innovation creativity ke madhyam se hum jo hamare samaj mein alag-alag tarike ke problems hain, samasyayein hain, uska hum nidan karte hain. Uska hum hal nikalte hain. Humne ye bhi baat ki thi kaise aaj ke samay mein hamara jo bhautik vishwa hai kaise hamara jo physical world hai woh digital transformation ke madhyam se guzar raha hai. Jismein ki jo cheezein aap pehle manushya se manushya ke beech mein paraspar kriya se karte the. Aaj wahan par ek upkaran ke madhyam se, computer ke madhyam se, mobile ke madhyam

se un cheezon ko aap ghar baithe-baithe turant kar paate hain. Toh digital experience becomes the central to our daily life. Understanding Human Computer Interaction is now more critical than ever. Kyunki yeh hamare jeevan ka ek abhinna ang ban chuka hai. Digital devices, digital upkaran aur unse paraspar kriya. Toh bina Human Computer Interaction ke padhai ke yeh adhoora hai. Jaisa ki humne yeh bhi baat ki thi Human Computer Interaction ek interdisciplinary course hai. Jahan pe ek se zyada vishayon ki knowledge ko use karke aapke upyogkartaon ke liye ek sahaj aur prabhavshali system banaya jaata hai. Jisse ki woh usko bade kushaltapoorvak bahut hi aasani se apne saare karya ko kar sakein. Toh is wajah se humein manovigyan psychology ka adhyayan karne ki bahut zaroorat hai. Jahan par hum apne upyogkartaon ko unke behavior ko padhte hain. Jahan par hum samajhte hain kaise woh jo bhi usko information milta hai, kaise usko grahan karta hai, kaise usko process karta hai aur kaise usko aage use karta hai. Humein yeh bhi dekhne ki zaroorat hai. Kaise woh in cheezon ko samajhta hai aur apne memory mein apne smriti mein usko rakhta hai aur uske basis pe apne jo bhi usne pehle se cheezein seekhi hain ya jo nayi cheezein seekhi hain aur jo bhi information data usko mila hai usko parse aur process karke koi bhi decision leta hai. Yeh humein experience cognitive load ke baare mein bhi batata hai aur react ko react emotionally to interfaces. Jaisa ki humne bola Human Computer Interaction mein sampark bindu jo hai woh technology aur jo upkaran hai manushya aur jo upkaran hai dono ko connect karta hai. Aur interface isliye kaafi aasan hona chahiye. Aasan hona chahiye aur bahut hi natural tarike se sahaj tarike se uska use karke apne kaam ko karna chahiye. Toh wahan pe hamare emotion ko bahut khushnuma hona zaroori hai. Bahut aasan tarike se hona zaroori hai. Interact through motor actions like tapping scrolling jo alag-alag tarike se vidhiyan hai jisse aap interact karte hain uske baare mein humein batata hai. Example ke taur pe aap dekh sakte hain applying cognitive psychology to reduce mental effort in a mobile application design. Aap kaise mobile application design ko bana sakte hain bade achhe tarike se jisse ki jo aapka upyogkarta hai us pe kam se kam mental effort usko zor lagana pade. Humne yeh bhi baat ki thi philosophy bhi ek bahut hi aham role play karta hai SCI ke andar. Woh mukhyatah hamare critical, reflective aur ethical ethical role ke baare mein baat karta hai. Kya naitik aur sahi tarike hote hain uske baare mein baat karta hai. Yeh humein madad karta hai ethical implications ke baare mein. Jaise aaj ke time pe jaisa ki humne baat kiya hamare charon taraf digital devices hain. Chahe woh CCTV ho. Chahe humne Alexa ki baat ki thi. Google Assistant ki baat ki thi jo hamari baaton ko sunta hai. Humne mobile phone ke baare mein baat ki thi. Jaisa ki humne baat ki thi shayad woh hamari baaton ko sun ke humein corresponding prachar toh nahi karta hai. AI bias ke baare mein baat ki jo bhi AI model hai jo bhi woh decision leta hai ya humein batata hai recommendation karta hai kya woh kisi bias ke tehat kaam toh nahi kar raha hai. Humne yeh bhi baat ki thi kaise darshanshastra humein guide karta hai design of responsible and inclusive system jo ki kisi bhi human kendrit human kendrit manav kendrit system ka ek aham hissa hai. Yeh ek mulbhoot prashn ke baare mein bhi kaise aadmi manushya aur technology ek doosre se jude hue uske baare mein bhi hamare gyan ka vardhan karta hai. Information design for value such as dignity justice and autonomy woh bhi darshanshastra ke madhyam se philosophy ke madhyam se humein madad karta hai. Kaise hum koi bhi human computer interaction based

system banayein. Udaharan ke taur par hum dekh sakte hain discussing whether controversial AI system should pretend to be human hona chahiye ki nahi hona chahiye so that's a philosophical and ethical question iske baare mein humein gehan adhyayan karna hai iske baare mein soch vichar karna hai aur humein batana hai kya yeh humein har jagah karna chahiye ya humein jahan pe sach mein zaroorat hai wahan karna chahiye kya jo upyogkarta aise system se baat kar raha hai usko usko pata hona chahiye kya woh aadmi se baat kar raha hai, manushya se baat kar raha hai. Ya kisi AI system se baat kar raha hai. Toh ye cheezein khastaur pe aaj ke zamane mein deep fake deep video deep fake video is tarah ke jo technology aage badh rahi hain. Toh humne kaafi had tak alag-alag news mein dekha hai. Kaise yeh alag-alag scam ko bhi karte hain. Jaise ki aapko ek fake call aati hai aur aapko lagta hai ki aapke kisi parivar ke sadasya ne call ki jabki woh nahi hai. Woh awaaz AI ke dwara janit hai aur woh aapko bewakoof banane ke liye aapko nuksan karne ke liye aapko financial loss karne ke liye aisa ki gayi hai. Aapko alag-alag duvidhaon aur pareshaniyon mein daalne ke liye ki gayi hai. Similar tarike se video calls bhi deep fake videos bhi hamare jeevan mein aaj ke time pe part hai aur humein saahaj humein basically is baat mein dhyan dena chahiye aur jagruk hona chahiye ki hum uske shikar na bane. Quickly hum baat karenge kaise psychology aur philosophy specially in the aspect of SCI alag-alag role play karte hain. Jaisa ki humne bataya psychology jo hai woh mukhyatah hamare user behavior perception aur cognition ke baare mein hota hai jo ki manovigyan ke tehat hum karte hain aur philosophy jo ki darshanshastra hai yeh reflect karta hai hamare ethics values aur reasonable design ke baare mein. Psychology ka jo main focus hota hai woh upyogita par hota hai. Usko yaad karne par hota hai. Alag-alag jo mental model hai uske baare mein hota hai. Jabki darshanshastra mein hum uske meaning, ethics aur human values pe zyada dhyan dete hain. Alag-alag jo common topics psychology mein cover kiye jaate hain, woh hota hai cognitive load, user testing, user experience jo ki kaafi aham hisse hote hain kisi bhi manav kendrit system ke aur ek baar jab system kaam karne lagta hai toh humein in cheezon ka bhi kaafi dhyan dena chahiye ki ethics, autonomy, autonomy aur digital rights ke baare mein hum saahaj rahein aur sahi tarike se kaam karein. Jaise aaj ke time pe aap sabhi log dekhte hain ki AI ke madhyam se aap alag-alag kala ka nirman kar sakte hain. Kewal aap apne prashn ko ya apne suggestion ko ek prompt ke madhyam se dete hain. Aur jo LLM base model hote hain, bade bhasha madhyam bade bhasha base jo models hote hain, AI models hote hain, woh kritrim buddhimata ka use karte hue aapke liye ek art create kar dete hain. Kya woh art kisi anya artist ke dwara banaya gaya art se seekh ke banaya gaya hai? Toh ye sab cheezon ko baare mein bhi humein dhyan dene ki zaroorat hai ki us pe right kiska hai. Example ke taur pe hum dekh sakte hain designing a mental health chatbot app. Agar hamara goal ki baat karein toh building a chatbot that helps user manage stress and anxiety through the conversation. Kya hum chatbot ke madhyam se, samvad ke madhyam se jo bhi hamara upyogkarta hai uske stress aur anxiety ko door kar sakte hain? Toh psychology mein hum kya karenge? Psychology humein help karta hai un cheezon ko samajhne ka ki kaise aapka upyogkarta, sochta hai, mehsoos karta hai aur behave karta hai. And how it is applied. So use cognitive psychology to design simple conversation. Jisse ki jo aapka upyogkarta hai us par bahut zyada mental pressure na dena pade. Usko samajhne ke liye apni baaton ko

rakhne ke liye unki baaton ko samajhne ke liye. Apply emotion theory to make chatbot respond empathetically. Humein jab bhi chatbot ke madhyam se hum apne upyogkarta se baat karte hain toh humein unse sahanubhuti ki zaroorat hoti hai. Humein yeh sochna chahiye woh kya samajhte hain, kya nahi samajhte hain. Woh kiske through guzar rahe hain. Woh sab cheezon ka dhyan dete hue humein unse baat karne ki zaroorat hai. Use behavioral psychology to nudge user from healthy habits, daily journaling aur is tarike se conduct user testing to refine usability and reduce friction. Jaisa ki humne pichle saptah mein bhi baat ki thi ki mulyankan ek bahut hi zaroori ghatak hota hai kisi bhi manav kendrit system banane ke liye. Human complete interaction base system banane ke liye jo ki humein madad karta hai uski upyogita ko aur badhane mein aur jahan pe bhi hamara upyogkarta struggle kar raha hai pareshan ho raha hai ya achhe se is system ko use nahi kar pa raha hai usko kam karne ki toh iska outcome jo hoga the chatbot becomes easy to use bahut aasani se aap usko use kar sakte hain woh apne upyogkarta ko judge nahi karega aur motivate karega because it aligns how the human brain works under the stress. Toh ek tarah se aap dekh sakte hain manovigyan kaise humein is chatbot ko banane mein madad kar sakta hai. Agar hum darshanshastra ki baat karein kaise woh yahan pe madad kar raha hai toh woh humein madad karta hai ethical thinking laane mein aur value driven design banane mein. Toh yeh basically puchta hai is it ethical for the chatbot to give mental health advice? Kya aisa pehle banane ki zaroorat bhi hai kya? Kisko dene ki zaroorat hai? Kab dene ki zaroorat hai? Kis tarah ki advice dene ki zaroorat hai? Kya woh validate kiya ja sakta hai? Mulyankan kiya ja sakta hai? Kiski responsibility hogi? Agar woh kuch galat bolta hai toh ye saari baatein hum ek tarah se yahan pe darshanshastra mein baat karte hain. So it should discuss the app notify authorities in case of crisis. Agar aapko lagta hai ki aapka jo upyogkarta hai woh bahut hi gehan mental stress anxiety chinta se guzar raha hai toh kya karna chahiye? Kya usko uske parivar ko bata dena chahiye? Kya police agency ko batana chahiye? Kya uske company ko batana chahiye? Uske kai pehlu ho sakte hain. Achhe bhi ho sakte hain, bure bhi ho sakte hain. Jaise shayad aap parivar ko batayein toh parivar wale turant madad ko aa sakte hain. Usko samjha sakte hain. Company ko batayenge toh company wale madad bhi kar sakte hain. Company wale usko company se nikal bhi sakte hain. Iske kai kai dher saare pehlu hain. Autonomy versus safety aur bhi dher saare pehlu hain. Toh in sab cheezon ka humein adhyayan in sab cheezon ke baare mein charcha jo bhi aapke keh sakte hain ki stakeholders hain unse unko dhyan mein rakhte hue expert ki rai ko jaante hue humein apne system ka design karna hai. Decide how AI respect AI privacy and consent. Jaisa ki humne pehle bhi baat kiya tha. Kya jo upyogkarta hai uski gopniyata ko kaise kiya rakha ja sakta hai? Kaise uski uski sehmati li ja sakti hai. Reflect how are we enforcing certain biases assuming stress looks the same for everyone. Toh ye sab cheezon ko bhi dhyan rakhte hue toh ek tarah se manovigyan humein yahan pe yahan pe darshanshastra humein basically madad karta hai chatbot ko respect user dignity transparent avoid harms and designing responsibility. Is tarike se aap dekh sakte hain kaise psychology aur philosophy dono SCI ke ek aham pehlu hai aur humein kisi bhi SCI aur human centered base system banane ke liye dono ko dhyan mein rakhte hue apne system ka pranali ka nirman karna chahiye. Design karna chahiye. Chaliye yeh is saptah ki rooprekha hai. Jahan pe hum baat kareng design kya hai? Humein

kisko design karne ki zaroorat hai? Interaction design kya hai? Interaction design ka SCI mein role kya hai? Hum inclusivity, accessibility aur design principle ke baare mein bhi baat karenge aur hum ek panel discussion bhi karenge design principle ke baare mein aur aapko Canva tool ka ek hands-on vyavaharik anuprayog bhi batayenge. Kaise aap us pe hands-on practice kar sakte hain aur uske baad aapko ek weekly assignment denge jo ki is saptahik assignment ke madhyam se aap jo cheezein seekhe hain usko practice kar sakte hain aur uska uttar de sakte hain. Chaliye start karte hain first part se jismein hum design ke baare mein baat karenge. What is design? Agar hum design ke ek tarah se definition ki baat karen toh Henry Dreyfuss jo ki ek bahut hi jaane maane American audyogik designer hain. Unhone bola tha what we are working on is going to be ridden in jiske saath aap sawari bhi kar sakte hain. Set upon baith sakte hain. Look at dekh sakte hain. Talked into batchit kar sakte hain. Activated usko start kar sakte hain. Operate uske saath uh work kar sakte hain. Aur aur bhi dher saare tarike se usko apne jeevan mein use kar सकते hain. Akele use kar sakte hain aur group of people ke saath use kar sakte hain. If the point of contact jahan pe agar hum yahan pe ek tarah se interface ki baat karte hain. If the point of contact jo ki aapka upyogkarta hai aur aapka jo system hai woh point of friction ban jaye jahan pe usko use karna uska prayog karna ek mushkil ho jaye chahe woh emotionally ho chahe woh usko use karne mein mehnati mehnat ka saamna karna pade challenges ko face karna pade toh jo aap designer tha usne shayad apna kaam achhe se nahi kiya hai kyunki us designer ko apna yeh jo point of contact hai is tarike se banana chahiye ki woh bahut sahad aur simple tarike se usko use kar sake. Natural tarike se jo uske daily ke jeevan mein jaise bhi us tarah ki system ko pehle woh use karta tha. Bahut aasani se usko use kar sake. Woh point of friction nahi hona chahiye. Uska jo purva gyan hai us baare mein woh wahan par usi tarike se kaam karna chahiye jaise ki woh apne vyavaharik jeevan mein use karta hai. Toh on the other hand hum bol sakte hain agar jo log upyogkarta use kar rahe hain agar woh apne aap ko surakshit mehsoos karen. Comfortable bahut ananddayi aur behtar tarike se mehsoos kar sakein. Unmein product jo bhi aap bana rahe hain usko khareedne ki ichha ho toh aur bhi zyada kushal ho. In simple term hum bol sakte hain ki aapka jo bhi product ya service aapne banaya hai usko use karte hue bada khush hai. Toh designer ne apna kaam kiya hai. In simple words you can say that designer has succeeded. Toh agar hum ek udaharan ke madhyam se iske baare mein baat karen jaise dainik jeevan mein aaj ke time par hamare se zyada tar log smartphone ko use karte hain. Agar hum is definition ke madhyam se smartphone ko ke upyogita ko ke upyog ko in point se dekhein toh kya woh usmein fit hota hai? Kya woh jo ek designer ke baare mein hum baat kar rahe the ki industrial design safal hua hai ya nahi hua hai? Chaliye dekhte hain kya woh safal ho pata hai ki nahi. Toh agar hum smartphone upkaran ki baat karen toh smartphone ridden in sawari karta hai hamare saath. Car ke dashboard mount for navigation ek tarah se aap apne car apne bike apne cycle mein bhi saamne aise laga dete hain jo ki aapko batata hai raasta. Aapko aage se left right straight jaana hai. Set upon kabhi-kabhi hum apne mobile ke upar baith jaate hain. Kinare rakh dete hain ya sofa ke neeche rakh dete hain. Is tarah se aap us pe kabhi-kabhi baith bhi jaate hain. Jabki iska main kaam nahi hai. Uske upar baithna kaam nahi lekin real life mein vyavaharik jeevan mein bahut tarike se cheezein ho sakti hain. Jaise look that read messages and watch

watch videos. Aap alag-alag tarike ke chalchitra aur message uh aap is pe padhte hain, dekhte hain. Talk into during the phone calls. Aap usse baat karte hain. Activated kaise aap usko start karte hain. Using voice command jaise aap Hey Siri bolte hain. Hey OK Google bolte ho ya Alexa bolte ho. Is tarike se aap usko activate karte hain. Start karte hain. Operated through screen touch screen and the application. Toh aap usko ek tarah se alag-alag madhyam se usko operate karte hain. Upar neeche ke neeche karte hain, scroll karte hain, zoom karte hain, zoom in karte hain. And aur bhi dher saare countless tarike se anginat tarikon se aap usko use karte hain. Photo se leke, apne net banking se leke, apne adhyayan se leke, apne security ko leke alag-alag tarike se aap usko use karte hain. Toh ek tarah se dekhein toh smartphone alag-alag tarike se banaya gaya hai. Toh ab iska madhyam kewal ab phone se baat karna nahi reh gaya. Alag-alag tarike se alag-alag tarike se use tha. Jaise aapne dekha hoga ki pehle smartphone jab naye-naye bane the toh haathon se girte hi uska screen toot jaata tha. Lekin aaj ke time pe uske upyogkarta dekhi woh gir bhi sakta hai. Woh baith bhi sakte ho. Bahut cheezein ho sakti hain. Toh usko tootne se usko aur robust kaise banaya ja sakta hai? Toh radiator screen aur is tarah ke madhyamon se aapne jaante hain ki ab uska screen kaafi robust ho gaya hai. Ab usko gira bhi dete hain toh bhi usmein koi dikkat nahi hoti. Aaj ke time par technology itni robust ho gayi. Jaise ab yahan pe ek hum aur baat karein riddin in ki mein agar hum swimming karte hain. Aaj ke time par aap apne kai dher saare aise phone hain jisko aap apne jeb ke andar rakh ke ya paani ke andar daal sakte hain. Usko kuch bhi nahi hoga. iPhone ke aise kai versions hain aur Android aur Samsung aur bhi jo companies hain usmein kai aise phones hain jisko aap phone ko paani mein daal denge kuch bhi nahi hoga. Toh jadui hai ek tarah se yeh toh humein the purpose hai ki humein design is tarike se banana chahiye jisse ki in saare cheezon ko jiske baare mein hum baat kar rahe hain yeh fulfill honi chahiye poori honi chahiye jisse ki har sthiti mein har paristhiti mein woh sahi rahe apna kaam kare aur lambe se lamba chale jisse ki hum apne finance ko bhi aur achha bana sakein sahuliyat ke saath. Toh design kya hai? Jaisa ki humne bola Dreyfuss ne bola tha human centered design an approach that places the need comfort and safety of user at the heart of design process. Kaise hum jo upyogkarta ki zaroorat ko unki sahuliyat ko unki suraksha ko center mein rakhta hai. Jab bhi aisa hum human centered base system banate hain toh agar hum isko dekhein toh ismein yeh chaar key ghatak aate hain. Keh sakte hain interaction as a key to success. Kaise hum jo interactions paraspar kriya kar rahe hain, woh kaise one of the important factor hai. Kaise woh hamari madad karta hai? Reducing friction primarily jaise humne bola ki jo aapka point of contact hai, sampark bindu hai, usko kaise friction-less bana sake? Kaise bade aasani se usko koi bhi upyogkarta use kar sake. Positive outcome for the people at the end of the day. Jaise jo bhi cheezein aap bana rahe hain yeh upyogkarta hai usko use karne ke baad khush hona chahiye aur khush tabhi hoga jab woh kaam karna chahta hai karya kar paaye aur manoranjan tarike se kar paaye aasani se kar paaye yaad usko aasani se ho jaye ki kal ko dobara usko di jaaye toh turant woh kar paaye success criteria for designer toh jaise humne baat ki ki agar yeh saari cheezein fulfill hoti hain toh designer bol sakta hai ki woh successful raha otherwise usko usne apna kaam shayad shayad poore achhe se nahi kiya. Toh jaise humne baat ki interaction as a key to success. Toh yahan pe products are not isolated

objects. Kabhi-kabhi aisa bhi hota hai ki yeh kewal ek log nahi ek se zyada log bhi ek saath use karte hain. Alag-alag tarike se use kar sakte hain. Chahe woh hum ridden in set in set upon look that talk in jo bhi humne baat ki thi woh aap dekh sakte hain. Chahe woh video game ki baat karein, chahe woh padhai ki baat karein, chahe alag-alag madhyamon se aap alag-alag cheezein jo apne jeevan mein use karte hain, woh woh dekh sakte hain. Toh this makes understanding how people will physically emotionally interact with a product crucial for its success. Toh ek tarah se physically aur emotionally jab bhi koi upyogkarta aapke product ya service ko use karta hai toh usko khush hone ki jo khush agar hai tabhi ek tarah se aap keh sakte hain ki jo uska anubhav tha, upyogkarta ka anubhav tha, usko aap badha sakte hain. User experience ko badha sakte hain. If the product feels uncomfortable, unintuitive or frustrating it's failed to serve its purpose regardless of how technically advanced it may be ho sakta hai ki aapne sabse nyuntam takneek ko use kiya ho. Bahut hi achhi accuracy ke saath woh kaam kar raha ho. Lekin agar woh in cheen in maapdand par fail hota hai, uncomfortable hai, unintuitive hai, frustrating hai toh woh ek tarah se apna jo us purpose tha usko meet nahi kar raha hai. Uske baare mein woh fail ho raha hai. Toh wahan pe usko humko dobara dhyan dene ki zaroorat hai. Jisse ki aapka upyogkarta usko achhe se use kar paaye. Udaهران ke taur par aap dekh sakte hain despite its technical sophistication Google Glass kuch saalon pehle Google Glass ek tarah se aap dekh sakte hain launch hua tha Google ke dwara woh commercially fail ho gaya. Bhale hi woh bahut hi zyada technical advancement tha. Ab jaise yahan par aap dekh sakte hain ki yahan par darshanshastra ki jo baat kar rahe the like privacy concern with the camera socially awkward design is tarah ki jo cheezein toh kewal functionality ki baat nahi hai. Bhale hi iski functionality ek se badhkar ek thi lekin kai dher saare kaaranon ke kaaran yeh market mein fail ho gaya aur Google ko isko band karna pada. Toh ismein dher saare jo reasons bataye gaye the usmein aap high price keh sakte hain. Short battery like bol sakte hain. Socially awkward design bol sakte hain aur usability bol sakte hain. Abhi recently Facebook jo ki ab Meta ke naam se jaana jaata hai. Usne in sabhi case study of course seekha ki Google Glass kyun fail hua? Us tarah ke aur bhi jo system the kyun full hue? Ab hum agar humein aisa tech iska matlab hai nahi ki aap technological jo takneeki hai aap usko karna band kar dein. Shayad usko aapko dobara revisit karne ki zaroorat hai, punravritti karne ki zaroorat hai. Aur jo cheezein humein pata chali ki shayad uski wajah se woh pass nahi ho saka, success nahi ho saka toh usko humein sahi karne ki zaroorat hai. Toh aap dekh sakte hain ki Meta ne ek tarah se apna naya camera aur glass camera glass launch kiya Ray-Ban ke saath jo dekh sakte hain ki dikhne mein chashme jaisa hi lag raha hai. Ismein alag se jo camera dikh raha tha woh directly visible nahi hai. Aur ismein dher saare aur bhi features hain jo ki pehle nahi the. Toh takneeki ka dhyan dete hue aur bhi other factors hain jo ki high price ho chahe short battery ho chahe aur bhi use uske upyogkarta ke points ho unko koshish kiya hai isko handle karne ka aur yeh toh samay batayega ki yeh kitna upyogi hoga kitna successful hoga. Lekin aise hi jeevan chalta hai. Aise hi technology aage badhti hai. Aise hi company aage badhti hai. Cheezon ko karte hain. Kuch cheezein safal hoti hain. Kuch cheezein vifal hoti hain aur aap vifal cheezon se seekh seekhte hain aur usko punah achha karne ki koshish karte hain. Toh reducing friction jo second point humne bola tha if the point of friction refers to any aspect of the product that could

disrupt or hinder the user's experience jo upyogkarta ka anubhav hai agar yeh point of interaction point of friction mein badal jaye jahan pe usko alag-alag pareshaniyon ka saamna karna pad raha hai. Jaise ki agar aapka point of contact for example ek button hai jis itna chota button hai ki usko aap dabane ja rahe hain woh dab nahi raha hai. Uske bagal mein ek aur button hai woh dab ja raha hai. Hum Alexa ki baat kar rahe the wahan pe ek tarah se hamara interface hamari awaaz aur system hai. Toh us case mein agar hum apni baatein bol rahe hain, prashn pooch rahe hain aur Alexa usko samajh nahi pa raha hai. Toh woh bhi ek tarah se hinder karta hai user experience ko. Is tarah se anekon example aap apne real life mein use kar sakte hain. Ek aur example jo ki mere mastishk mein aa raha hai. Aap soch sakte hain. Jaise aap mobile phone use karte hain fingerprint ke saath photo ke saath usko unlock karne ke liye. Aap koshish kar rahe hain ki unlock ho jaye. Ho hi nahi raha hai. Humne Aadhaar ka bhi example bataya tha. Alag-alag government services ke liye aapko apna Aadhaar mein login karne ke liye aapko apna thumb se apne finger se unlock karna padta hai. Toh aap dekhte hain ki woh aapka kaam nahi kar raha hai. Toh yeh sab cheezein point of jo contact tha point of interaction toh woh point of friction mein badal gaya. Toh woh humein bahut hi savdhanipoorvak banane ki zaroorat hai. So friction could be caused by confusing controls, uncomfortable material, lack of ergonomics. Dher saari saari cheezein hain jo ki isko affect karti hain. Jaise chair ka design ho example ke taur pe yahan bataya gaya hai. Agar woh discomfort hai toh jis tarike se bhale hi woh baith aap baith toh sakte ho lekin woh kitna comfortably kitne aasani se sahuliyat ke saath baith pa rahe ho woh nahi ho pa raha hai. Toh a designer's job is to anticipate and minimize these points of in points to ensure a smooth and pleasant experience. Kaise aap khushnuma uska anubhav bana sakte hain. Woh aap alag-alag tarikon se pata kar sakte hain. Woh apne anubhav se pata kar sakte hain. Apne apne jo bhi sarvekshan hai usse pata kar sakte hain. Expert se baat kar sakte hain. Apne upyogkarta ko use karte hue system ko dekh sakte hain aur anuman laga sakte hain. Kya-kya dikkaton ka saamna usko karna pad raha hai. Positive outcome for people. The mark of successful design is whether the product makes people's life better. Kyunki hamara sabse bada lakshya yahi hai ki hum kaise logon ke takneeki ke madhyam se jo uske upyogkarta hain unka jeevan kaise aur achha bana sakte hain. Usko banane ke liye agar jo bhi human centered manav kendrit system aap bana rahe hain. Agar woh yeh kar pa raha hai toh ek tarah se aap successful rahe hain. Successful design otherwise aapko fir se punravritti karne ki zaroorat hai. Feedback lene ki zaroorat hai. Literature survey karne ki zaroorat hai. Kyun? Jo aapne takneeki ka madhyam takneeki ko use karke product banaya, service banaya. Kyun log usko use nahi kar pa rahe hain achhe se? Kyun apna karya kar hi nahi pa rahe hain? Kya unko pareshaniyon ka saamna karna pad raha hai? It feels people safer, more comfortable, more eager to purchase then more efficient or just plain happier. So then the productivity product is effectively designed. Toh jaisa ki humne example ke madhyam se bola agar ye saari cheezein ho pa rahi hain toh jo aapka designer hai woh successful raha hai. Otherwise aapko revisit karne ki zaroorat hai. Toh yeh bhi yeh bhi darshata hai ki product should not only function well. Kewal aisa nahi hona ki kewal achha se kaam hi karein. Jo usko karya karne ke liye banaya gaya wahi karein. Uske saath-saath kaise hum usko deeper role by contributing positively positivity to people's life. Kaise hum logon ki

jeevan mein sakaratmakta ko la sakte hain, woh bhi humein dekhne ki zaroorat hai. Udaharan ke taur pe a well designed smartphone is not just technologically advanced. It is easy to hold. Wahan pe ergonomics ki baat karte hain. Design is tarike se kiya gaya hai ki aap usko aasani se utha sakein, pakad sakein, le sakein, jeb mein rakh sakein. Dher saari cheezon ki baat karte hain. Intuitive purse mein rakh sakein. Intuitive to use and becoming a tool for that simplify enhances daily activities. Jo bhi aapke rozmarra ki zarooraton ko rozmarra ke karyon ko aap mobile ke madhyam se kar sakein. Aaj ke time par aap yeh bhi dekh rahe hain kaise mobile ek laptop ki tarah bhi kaam kar raha hai aur saare almost cheezon ko apne kewal chote se mobile ke madhyam se jisse ki aap yatra karte samay aur bhi alag karya karte samay khali samay mein kar sakte hain. So success criteria for designers kya hai? Ek tarah se keh sakte hain ki outlining a framework that outlining a framework for evaluating design success. Designer's role goes beyond creating something aesthetically pleasing. Kewal sundar dikhna zaroori nahi hai. Sundar dikhe achhi baat hai. But saath mein usko bahut aasani se use kar paaye. Apne karya ko kar paaye. True success achieved when the designer's work resonates with user's functional and emotional level. Toh kaise functional karya aur emotional ke level par apne upyogkarta se taalmel bana pa raha hai. Unke saath milke kaam kar pa raha hai. First essence of connection usability and satisfaction. Kaise woh apne upyogita apne karya ki upyogita ko dikha pa raha hai aur santusht ho raha hai on end of the day. Toh hum keh sakte hain ki yahi hai ek uh designer ke liye success criteria. Toh agar hum uh iska ek summary banaye, conclusion batayein. Toh Dreyfuss's approach to design was pioneering because he pushed for the product to be user-centered in every possible way. Kewal functionality ke hisaab se nahi kyunki yeh karya karna chahiye. Jaisa ki humne bataya it should be ridden on, set upon, looked upon and operated action. So many things humne discuss kiya activated he conducted extensive research into how people interact with the product and incorporated those insights into his design. Toh kaise aap keh sakte hain ki kaise log technology se product se paraspar kriya karte hain. Apne karya ko karte hain aur un sab cheezon ko use karke incorporate karke jo bhi uski learning thi, jo bhi uska gyanvardhan hua is poore study se woh apne design mein usne daala. His work highlights the responsibility of designer to think beyond aesthetics. Jaisa humne baat kiya kewal sundar dikhna zaroori nahi hai. Usko saare aur bhi ghatak ke baare mein baat karni padegi. Jaise ki how to make people feel and perform in real life. Toh hum angrezi mein bolte hain legacy system, legacy knowledge. Agar aap kisi system ko bana rahe hain. Agar woh real life mein exist karta hai. Kaise hum apne karya ko wahan par karte hain jab hum usko digital transformation karte hain. Toh hamara uddeshya hota hai ki hum wahan pe bhi usi tarike se karne ki koshish karein jaisa ki hum apne bhautik jeevan mein uska prayog karte hain. So this philosophy led to the foundation for modern human-centered and user-centered user experience design which remains fundamental to how approach we approach design challenges today. So chaliye aapko ek karya dete hain. Jaisa ki humne smartphone ke baare mein bataya. Kaise Henry Dreyfuss ke paribhasha ke anusar aap usko ek define kar sakte hain ki kaise ridden in, set upon, look at, talked into, activated, operator and any other use cases mein fit hota hai aur designer ne jo bhi smartphone design kiya tha woh saari cheezon pe in saare paimanon pe bade achhe se fit hota hai aur apne

karya ko karta hai. Kya aap car ke baare mein kya aap autonomous car aap bol sakte hain agar aap chahein toh smartphone ke baare mein humne baat kar li ATM ke baare mein aur bhi anya jo bhi aapke jeevan mein aaspaas cheezein ho rahi hain jo upkaran aap use kar rahe hain kaise aap bata sakte hain ki jo bhi usko banaya gaya hai woh in sab paimanon par khara utarta hai. Toh main aasha karta hoon ki aap yeh karya karenge jisse ki aap jo cheezein abhi humne batai bade achhe se relate kar paayein aur uske baare mein aur jaan paayein aur apne sehpathiyon ke saath uske baare mein charcha karein. Chaliye aage badhte hain what to design. Ab hum samajh gaye design kya hai? Chaliye ab seekhte hain what to design. Toh isko hum ek study ke madhyam se karte hain. Jaise humne pichle vyakhyan mein discuss kiya tha kaise alag-alag remote control TV ko control karne ke liye banaye gaye hain aur is tarah se toh humne yeh bhi discuss kiya kai dher saare tarike ho sakte hain isko interact karne ke banane ke. But uske pehle humne bataya tha ki hum jab bhi koi bhi upkaran apne jeevan mein real life mein aaspaas dekhte hain toh humein yeh saare prashn puchne chahiye. Kya aapko koi bad design mila? Agar jaise jo bhi aap upkaran use kar rahe hain kya usmein aapko kuch bad design dikha? Agar tha toh aapko obvious si baat hai koi pareshaniyon ka saamna karna pada hoga. Toh kin pareshaniyon ka saamna karna pada? Toh aap usko apne anubhav ko saajha kariye aur agar aapko usko sahi karna hua toh kis tarah ka hal solution aap nikalenge aur jaisa ki humne bataya ki kisi bhi karya ko karne ke kai dher saare solution ho sakte hain. Kuch achhe ho sakte hain, kuch bure ho sakte hain. Kuch mehenge ho sakte hain, kuch saste ho sakte hain. Kuch kuch logon ko fit honge, doosre ko nahi honge. Is tarah ke ho sakte hain. Toh have you thought about solutions? Kya aapka solution optimal hai? Kya aapka solution best solution hai? Aap kaise ensure karenge ki jo solution aapne banaya hai woh jis problem ko solve karne ke liye banaya gaya tha ya jis problem ko aap face kar rahe the usko solve kar raha hai. Us problem ko solve karne ke chakkar mein kahin aisa toh nahi aapne beda gark kar diya. Pehle jo cheezein achhe se chal rahi thi woh bhi kharab ho gayi. In sab cheezon ko kaise pata karein? Uske liye aapko mulyankan karna padega, evaluation karna padega, testing karni padegi. Toh agar aapka solution perfect nahi hai jo ki zyada tar cases mein nahi ho sakta turant toh woh ant nahi hai toh aapko fir se punravriti karne ki zaroorat hai. Iteration karne ki zaroorat hai. Isiliye hum baar-baar design mein bolte hain iterative design. Humein iterate karne ki zaroorat hai. Toh is case study ke baare mein jaise ki hum discuss kar rahe the. Uh which is the best way to interact with a smart TV. Jaise humne bataya aap alag-alag tarike se interact kar sakte hain. Aap type karke kar sakte hain. Swipe karke kar sakte hain. Bol ke kar sakte hain. Gesture se kar sakte hain. Alag-alag tarike se kar sakte hain. So technology should adapt to our needs. Hamari zarooraton ke hisaab se technology ko evolve karna padega aur samajhna padega. Not the other way around. Aisa nahi hona chahiye ki apan jo nayi technique aayi hai, technology aayi hai, ab hum uske hisaab se apne aap ko badlein. Kyunki technology toh samay ke saath badalti rehti hai. Agar hum aaj is nayi takneek ke hisaab se badlein parson humein kisi aur takneek ke hisaab se badalna padega. Uske baad kuch aur takneek ke hisaab badalna padega. Toh yeh sahi tarika nahi hai. Sahi tarika yeh hai ki jo bhi aap nayi technology ko bana rahe hain toh jo legacy knowledge hai, jo legacy practice hai, jaisa ki aapka upyogkarta normally natural tarike se apne niji jeevan mein, apne vyavaharik jeevan mein kaam

karta hai. Usko usi tarike se kaam karne dein aur apna karya complete karne dein. Toh is tarike se aap dekhein toh adaptive and predictive typing on smartphone like the auto-complete auto-correct features found in keyboard is tarah se nayi features hain. Toh chaliye ek ke baad ek-ek tarike se alag-alag tarike ke baare mein hum quickly discuss karte hain aur fir last mein batate hain kaun sa best tarika ho sakta hai. Main yahan pe disclaimer dena chahta hoon ki again yeh kaafi subjective hota hai. Kaafi vyakti parak hota hai ki mere liye best kya hai? Ho sakta hai ki jo main bolun woh mere liye best ho par aapke liye na ho ya aapke liye jo sabse achhi cheez ho woh mujhe pasand na aaye. Toh design aisa hi hai aur humein apne design ko is tarike se banana hai ki jo log jo chahte hain woh usko us tarike se prapt kar sakein aur apna karya kar sakein. Toh chaliye alag-alag tarike baat karte hain. Aap remote control se aap us pe jo grid ko keyboard hota hai jaise aap kuch type karna hota hai toh aap aise tak tak tak aise karke apni ungli se usko type karte hain alag-alag letter ko aur apne input ko dete hain. Aap swipe bhi kar sakte hain. Jaise alphanumeric jo keyboard hote hain aap usko swipe karke bhi likh sakte hain. Aap apne voice control se koi command de sakte hain. Alexa play this song. Siri play this movie. Is tarah se aap alag-alag cheezein bol sakte hain. Apne gesture se aap apna input de sakte hain. Mobile app ko as a remote kaafi time pe aaj kal aap dekhte hain ki badi kai baar humein aise chunautiyon ka saamna karna padta hai ki hamara remote nahi mil raha hai. Hamari chaabi nahi mil rahi hai. Chahe woh car ki ho, chahe smart TV ki ho. Toh kya hum apne mobile ke madhyam se hi un cheezon ko lock unlock kar sakte hain? Toh yeh cheezein aaj feasible hai. Smart control, smart watch control aajkal aap kewal ab dheere-dheere jaise-jaise takneeki aage badh rahi hai. Toh jaise-jaise aaj ka smartphone laptop ki tarah kaam kar raha hai. Aap keh sakte hain ki aajkal aapka smart watch mobile ki tarah kaam kar raha hai. Kaun jaane kal woh laptop ki tarah bhi kaam kare. Toh augmented reality, air glasses in sab cheezon ka bhi upyog ho sakta hai. Motion control remote bhi gyroscope sensor ke madhyam se aap use kar sakte hain. Toh aapko kya lagta hai kaun sa sabse achha madhyam hai aapke liye remote control ko handle karne ke liye? Toh yeh pehla madhyam jaise humne bata raha tha picking using a grid keyboard on a remote control. Jaise ki aapko kuch type karna hai toh aap alag-alag button ko aise dabayenge. Alag-alag button ko aise dabayenge kuch likhne ke liye. Jaise aapko agar Rajiv likhna hai toh pehle R press karenge. Ismein ek challenge aap immediate face kar sakte hain. Dekh sakte hain. Mujhe letter ko dhoondna padega. Aur kaafi time hai. Kaafi keys jo hain kaafi paas-paas hain. Toh galti se main A ki jagah shayad B daba doon. B ki jagah shayad C daba doon. @ ki jagah yeh daba doon. Toh yeh saari cheezein ho sakti hain. Toh yeh definitely bahut hi aasan tarika toh nahi hai. Bada time taking tarika hai aur galti hone ke chances yahan pe bahut zyada hain. It's slow and cumbersome. Iski achhi baat yeh ho sakti hai ki familiar and precise for those accustomed to the purane jo traditional remote control hain usko jaise use karne ki aadat hoti hai toh shayad unke liye achha ho. Doosra tarika jaise humne bataya aap swipe kar sakte hain. Toh iske bhi pros and cons aap dekh sakte hain. Pros yeh hai faster than picking jo pichla madhyam tha. Uses familiar gesture like swiping and more intuitive. And cons hai limited speed and accuracy requires coordination and might be challenging for khaastaur pe jo budhe aur tech less tech savvy log hain jo ki kaafi natural tarika hai bol ke apne control ko request ko dena toh kaafi fast hota hai

hands-free hota hai intuitive hota hai saahaj hota hai ideal for free commands like searching for show waghera waghera kuch log isse pareshan bhi hote hain. Jaise for example aap party mein hain aur wahan pe aap bolna chahte hain aap is gaane ko lagao is movie ko lagao toh jo aapka technical system hai shayad woh us bhasha ko aapke request ko samajh nahi paata kyunki background method noise hota hai. Hamari ASR technology Automatic Speech Recognition technology abhi bhi evolving phase mein hai aur abhi is tarah ke issues ko bade achhe se solve nahi kar paata hai. Accent ki baat humne ki thi woh bhi keh sakte hain ki shayad woh aapke accent ko nahi samajh pa raha hai kyunki jo AI model train hai woh shayad for example native English speaker ke upar hai. Toh is tarah se aap yeh iske cons so but agar yeh sab cheezon ko hum solve karte hain toh one of the best solution hai. Gesture control using a camera sensor hands-free no need for physical device engaging and futuristic but again dekh sakte hain thoda sa ismein galtiyan hone ki chances bahut zyada hain. Khaastaur pe ki camera based hai. Lighting ka bhi ek bada important role hai. And again thoda sa inconvenient bhi ho sakta hai. Because steep learning curve for precise action different alag tarikon ke liye aapko precise action karna padega. Aapko uthna padega karna padega gesture. Yeh bhi iski kamiyaan hain. Mobile as a remote aap jaisa maine bataya ki aap aajkal remote control ki jagah apne mobile phone ko as a remote use kar sakte hain. Apne car ko start karne ke liye, apne mobile ko apne television ko start karne ke liye. And ek tarah se aap dekh sakte hain. But usually smartphone ke dwara jab bhi aap karte hain toh usmein limited feature hote hain. Saare features nahi hote hain. Potential connection issue ho sakte hain. Ho sakta hai security based jo kisi ne aapka phone chori kar liya uska misuse kar sakta hai aapke car ko theft karne ke liye aur so on. Smart watch again kaafi iske bhi pros and cons hain. Quick access to the basic commands. Woh sab chal jaata hai. But uske beyond agar aap jaana chahte hain toh bada mushkil hai. Limited functionality due to kaafi screen size uski kaafi choti hoti hai. Toh saari cheezein possible nahi hai. Toh jo jatil interaction hai woh impossible hai karna. Impossible toh nahi bolenge but bahut mushkil hai karna. Voice and touch combination toh aap jitne bhi madhyam humne baat ki uske baare mein aisa nahi ki woh individually hota hai. Woh aap combine karke bhi kar sakte hain. Jaise voice and touchpad combination. For example voice ke madhyam se aapne bola usne usko type kar diya automatically using ASR technique toh kuch spellings ya kuch naam jo galat tha jo usko sahi nahi kar paye kewal aap ab usko sahi karna padega rather than poore sentence ko poore phrase ko fir se likhne ki bajay toh ek tarah se yeh bhi achha madhyam hai ARVR ke baare AR ke madhyam se bhi aap kar sakte hain motion control remote gyroscope sensor again iske madhyam se kar sakte hain but again yeh thoda sa futuristic hai. Thoda sa basic trying to hold point for extended periods require steady hand movement aur bhi dher saari cheezein. Toh conclusion hai ki dher saari cheezein my best choice is voice control with combination of other method for flexibility. Jaise is case mein humne text bola tha. Aur is tarah se dekh sakte hain ki aapke kuch cheezon ko choose karne ke reasoning hote, justification hote hain. Toh yeh mera hai voice comes offers the most natural and hands-free interaction enhancing usability. Aur isko aap touchpad ya mobile app ke saath agar combine karein toh it's a very good balance between the convenience and the precision. Advanced method like AR/VR promising but currently limited

due to accessibility and accuracy har koi usko afford nahi kar sakta. And so on. So goal is not to people interact with the technology but to make technology seamlessly integrate with their life. Toh yeh humein baaton ka dhyan dena hai. Toh is tarah se jaise ki humne television ke remote control ke upar yeh case study prastut ki. Aasha karta hoon ki aap bhi aise anekon case study apne aaspaas ke jeevan mein dekh sakte hain aur unmein se ek utha ke is tarike se analysis kar sakte hain jaisa ki humne bataya. Jaise ki unmein se kuch hai navigation ke liye. So what are the possible ways to interact with a map in a car? Kya aap aise map le dekhenge ya tab le haath mein dekhenge? Similarly agar aap exam mein baithe hain aur sitting in the first class aapka phone aa gaya ghar wale ka toh kya aap class mein unke saamne aise baat karenge ya khilkhila ke aise mobile par message dekhenge toh kya best tarika hona chahiye toh is tarike se aap inka baare mein sochiye aur apna vichar rakhiye toh humein is baaton ka dhyan dena hai ki need to take into account identify the users identify who the users are kyunki hum jab bhi baat karte hain what to design toh humein samajhna padega ki aapke upyogkarta kaun hai jaisa humne pichle vyakhyan mein discuss kiya tha. Agar aap apne upyogkarta ko samajh gaye, unki zarooraton ko samajh gaye toh aadha problem toh wahin hal ho gaya. Aapke samasya ka jo nidan hai woh aadha wahin ho gaya. Agar aap apne upyogkarta ko samajh gaye. Understand the activity they are performing. Jo bhi woh karya kar rahe hain, kaise kar rahe hain, kya kar rahe hain, woh baaton ko samajhna zaroori hai. Uske baad determine the context in which the interaction is happening. Toh jo bhi interaction ho raha hai woh humein dekhna padega. Woh kis tarike se use kar rahe hain. Kis environment mein use kar rahe hain. Ho sakta hai ki ek same user same functionality ek environment mein bade achhe se kar pa raha hai. Jaise hi woh environment change hota hai wahan pe woh suddenly fail ho jaata hai. Toh is wajah se focus on optimizing user interaction with the product ensure they align with the user task and the requirement. Toh interaction design ki hum baatein karte hain. Interaction design kya hai? So agar hum design ki baat karen toh Sharp, Rogers as Priest ne interaction design ko define kiya hai. Designing interactive products. Jaisa ki humne baat kiya tha hamara aaj ka jeevan chaaron taraf se alag-alag keh sakte hain ki digital products se devices se upkaranon se services se connected hai, juda hua hai. Toh designing interactive product to support the way people communicate baat-cheet karta hai, samvaad sthapit karta hai in their daily life and working life. Toh woh cheezon ka woh cheezin interaction design kehlati hain. Aur bhi alag-alag definitions hain. Aap dekh sakte hain. Toh but iska goal primarily yahi hai. Hum koi product aisa bana sakte hain jo ki kaafi upyogi ho. Usability yahan pe matlab hai aaram se aasani se usko aap seekhein. Effective to use. Prabhavshali ho usko prayog karne mein. Provides an enjoyable experience. Aisa nahi hona chahiye. Kewal apna kaam hi karen. But bade enjoyable tarike se karen. Toh iska solution dekhiye yeh jaisa humne pehle bhi baat kiya involves user in the design process itself. Humein interaction design padhne ki zaroorat kyun hai? Is Human Computer Interaction mein. So studying interaction design in Human Computer Interaction is essential because yeh zor deta hai kaise aapka upyogkarta technology se interact karta hai. Khaastaur par digital technology se upkaranon se interact karta hai. Yeh yeh bhi humein ensure karta hai ki yeh jo interaction ho raha hai upyogkarta aur technology ke beech mein upkaran ke beech mein yeh kaise prabhavi hai.

Kaise sahay hai, simple hai, enjoyable hai aur meaningful hai. Matlab jo isko karna chahiye, uska kuch arth hai. Yeh interaction design mein jaise ki humne baat ki puts the user at the center. Woh apne user ko madhya mein rakhta hai. Upyogita ko badhata hai. Shapes user experience jo uska anubhav hai usko aur badhata achha karta hai. Aur jo human technology ke beech mein gap hai jo khai hai usko bharta hai. Support accessibility and inclusion accessibility aur inclusion ko madad karta hai jo ki hamare design principle ke aham part hain. Reduces errors and increases efficiency. Galtiyon ko kam karta hai. Jahan pe galtiyan ho sakti hain usko aur koshish karta hai ki usko minimize kar sake jisse ki uski kushalta badh jaati hai aur hamara jo navachar hai jo hamara jo innovation hai usko fuel karta hai. Without good interaction design. Even powerful technology can fail in the hands of real user. Jaisa ki humne Google Glass ke baare mein fir discuss kiya tha. Toh user experience jaisa ki humne pichli slide mein baat kiya ki humein isko badhana hai. Humein iske jo upyogkarta ke anubhav hai usko badhana hai. Toh isko hum chahiye pehle define kar lete hain. How a user perceives a product such as whether a smartphone is seen as sleek or so kaise woh patla dikh raha hai, mota dikh raha hai. Their emotional reaction to it. Woh unko dekh ke unka emotional reaction kaisa hai? Whether such as people have a positive experience while using. Toh end of the day jaisa humne baat ki thi. Agar woh aapke product ko aur service ko use karne ke baad khush hai. Khush tabhi hoga jab woh jo karya karna chahta tha bade sugamta se bade achhe se bade efficient tarike se prabhavshali tarike se kar paya. Toh yahan par key jo hai it is not enough that we build product that only functional but that are also usable that need to build joy excitement pleasure fun and yes beauty to people's life toh humein apne upyog ke anubhav ko uchhtam star par le jaane ke liye jo kuch bhi karna pade humein as a designer as a developer usko apne product mein aur services mein daalna chahiye. So user experience agar hum baat karein toh a product behaves and it's used by the people in real life the way people feel about it their pleasure satisfaction. Ab again using it, looking it, holding it, operating. Toh, yeh kewal aisa nahi ki jab aap particular functionality karte hain. Yeh sab kuch hai. Jaise aap koi mobile app banate hain. Mobile app ko start karne mein hi probably kaafi samay lag ja raha hai. Toh experience wahin se kharab ho gaya. Ho sakta hai ki uske baad ek baar khul jaye toh aap usko jaise hi press karein functionality turant ho jaye. Jo karya karna chahte hain turant turant ho jaye. But uske pehle aapka anubhav aise hi kharab ho gaya. Every product that is used by someone has a use experience. Toh again aisa nahi ki kewal digital cheezon ki hum baat kar rahe hain. Yahan par kuch bhi cheez aap apne jeevan mein use karte hain. Usse aapka anubhav juda hota hai. Chahe woh newspaper ho, chahe ketchup ho, chahe armchair ho, dher saari cheezein aap kar sakte hain. So all aspects of end user's interaction with the company, its services, product sab kuch user experience ki taraf contribute karta hai. Jaise ki pichle vyakhyan mein humne yeh bhi discuss kiya tha kaise user experience usability customer experience kisi product ke baare mein aap design karte hain. Matlab kisi product ke baare mein kya hota hai? Yeh Apple phone ke madhyam se humne discuss kiya tha. And main aasha karta hoon ki aapne aur bhi example us example ke around consider kiye gaye honge. Toh usability user experience user interface is Venn diagram ke madhyam se aap dekh sakte hain kaise woh ek doosre se related hain toh how do usability goals differ from the user experience toh kaise woh

ek doosre se related hain kya koi trade off hai kya humein kuch ek ko choose ek ko badhane mein doosre ko ghatana padta hai doosre ko ghatane mein badhane mein pehle ko kam karna padta hai kya hum koi ek madhya ka tarika use kar sakte hain jahan yahan pe hum dono ko jitna achha kar sakte hain karein. Are there trade-offs between two kinds of goals? Can the product be both fun and safe? How easy it is to measure usability versus user experience goal? Toh koi bhi product ya service aap use kar rahe hain toh wahan pe agar aapko apne user experience aur usability ko badhana hai toh jo desirable aspect hone chahiye in cheezon ka aapko dhyan dena hai. Satisfying hona chahiye, helpful hona chahiye, fun hona chahiye, enjoyable hona chahiye, motivating hona chahiye, engaging hona chahiye. Aur bhi dher saari cheezein aap yahan pe dekh sakte hain jaisa mention kiya gaya hai aur kya cheezon ko aapko avoid karna chahiye jisse ki aapka user experience na ghatne usability na ghatne toh boring nahi hona chahiye unpleasant nahi hona chahiye frustrating nahi hona chahiye annoying nahi hona chahiye and so on ek aur case study ke baare mein agar hum baat karein jaise ki Tesla ka car launch jab hua tha so why was the Tesla car experience was such a success same iPhone ke baare mein bhi hum something similar bol sakte hain. Because quality user experience from the beginning simple elegant distinct brand pleasurable must have thing catchy names. Is tarah se ek tarah se jaise aaj ke time pe having iPhone ek tarah se woh matlab ek alag feeling provide karta hai kuch upyogkartaon ko khaastaur par unko dikhane ke liye ki shayad aap elite brand ke hain. Aap elite hain. Toh kuch log kewal isiliye lete hain. Woh isiliye nahi lete ki iPhone feature mein kaisa hai. Woh isiliye lete hain ki hum dikha paayein mere paas iPhone hai. So many aspect of UX that can be considered many ways of taking them into account when designing interactive products. Toh inmein se centralness jo hai usability ka, functionality ka, aesthetics, content, look and feel and emotional appeal. In saare cheezon pe aapko kaam karne ki zaroorat hai. Jaisa ki humne bataya tha ki jaise jaise hi iPhone launch hota hai log paaglon ki tarah line mein lag jaate hain. Ek-ek din pehle ek-ek hafte pehle pehle aise toh hota tha. Toh yahan pe aap dekh sakte hain ki abhi iPhone 16 jab India mein launch hua toh Mumbai ke BKC mein kaise log linon mein lage pade hain. Pehle din hi iPhone ko khareedne ke liye. Aisa toh hai nahi ki woh pehle din nahi lenge toh iPhone nahi le sakte. Ek hafte baad le sakte hain. Bade aasani se itni lambi line mein nahi lena padega. But unko toh pehle din hi chahiye. Unko toh pehle din hi movie dekhne jaana hai. Toh khair yeh sabki pasand hai. Aur bhi example aap dekh sakte hain. Main saare examples mein nahi jaunga. But main chahunga ki aap iske baare mein dekhein. Jo bhi upkaranon ko jo bhi services ko jo bhi applications ko jo bhi web browser web pages ko aap apne jeevan mein use karte hain aap unko dekhein kaise for example yahan pe ek HDFC bank ka hai kaise usage on off yeh sab cheezein gayi hain aap inko dekh sakte hain kitna usable yeh hai functionality wise aesthetics hai content hai look and feel emotional yeh saari cheezein aap dekh sakte hain toh iske saath hi main abhi yahan pe rukta hoon aur hum part two ke saath jald hi prastut honge. Dhanyavaad.