



Final-Semester Examination

Name : Shahid Ali
Id : 13942
Degree : BS (SE)
Module : 6th Semester
Subject : Human Computer Interaction
Submitted To : Mr. Shahab Ul Islam
Date : 26/06/2020

Question 1:

Consider the chair given below. Your Employees want to use it as a computer chair. Your task is to write any As HCI Specialist, your job is point out any five issues in the design of this chair.

Ans: 1: Tight Hips

Over time, being stuck sitting in a bent position on a daily basis—from your desk at work to your couch at home—shortens your hip flexors, a group of muscles located at the front of your hips, causing pain. Tight hip flexors also contribute to lower back soreness, another common complaint.

2: Wrist Strain

Spending your days and nights pounding away at your keyboard responding to emails or writing reports can cause injuries that can become a serious health issue.

A combination of overuse and how you're positioning your wrists at your keyboard are to blame. "Whenever you operate a keyboard or mouse, the tendons in your wrists go back and forth," Aguilar says. "These tendons are parallel to each other, so they glide back and forth and create friction, which [is called] a micro trauma. That repetitive motion causes fatigue, and the tendons may become inflamed."

3: Eye Strain

Staring at your computer for hours at a time can cause eye fatigue, as can having a computer monitor that's too far away (making your eyes strain to read the small print) or too close (making your eyes work harder to focus). People also tend to blink less often while staring at their computer, which leads to dry eyes and fatigue.

4: Neck and Shoulder Pain

You never realize just how much you move your neck and shoulders until they're injured—and then you feel every single shift and twist. These aches and pains may come from placing your keyboard or computer monitor too far away on your desk, causing you to jut your neck and shoulders forward, throwing them out of alignment with the spine and straining the muscles and soft tissue.

5: Lower Back Pain

Whether it's an occasional twinge or an ongoing ache, back pain can keep you from performing at your best. Sitting chained to your desk for hours at a time can lead to lower back pain, the most common work-related back problem. So what exactly is going on back there? Slumping back in your desk chair or slouching forward means your spine is out of alignment. That puts a strain on the ligaments and muscles in your back.

Question 2:

What is Paradigm, and what do you mean by paradigm shift?

Ans: Paradigm: Paradigm is a distinct set of concepts or thought patterns, including theories, research methods, postulates, and standards for what constitutes legitimate contributions to a field. A scientific paradigm is a framework containing all the commonly accepted views about a subject, conventions about what direction research should take and how it should be performed.

Paradigm shift:

“The successive transition from one paradigm to another via revolution is the usual development pattern of mature science”- Kuhn, the structure of scientific revolutions.

The paradigm shift is a situation in which the usual and accepted way of doing or thinking about something changes completely:

. The widespread use of social media represents a paradigm shift in the way we communicate.

Question3:

Explain Design Rationale. Write and explain the types of design rationale.

Ans: Design Rational: Design Rational is information that explain why a computer system is the way it is.

Benefits of design rationale:

- Communication throughout life cycle
- Reuse of design knowledge across products
- Enforces design discipline
- Presents arguments for design trade-offs
- Organizes potentially large design space
- Capturing contextual information

Types of Design Rationale:

- **Process-oriented:** preserves order of deliberation and decision-making.
- **Structure-oriented:** emphasizes post hoc structuring of considered design alternatives

Two examples:

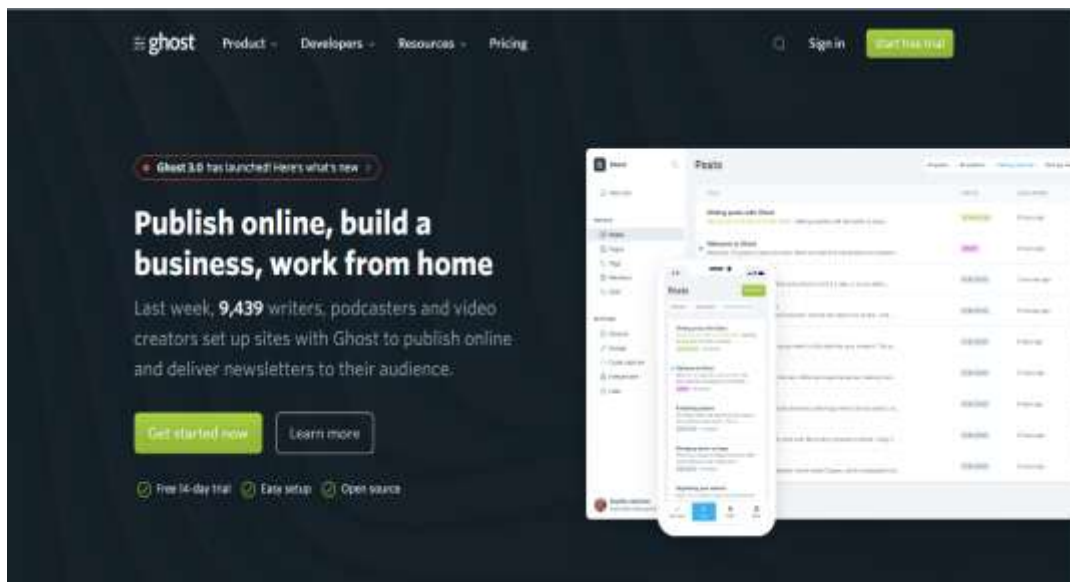
1. Issue-based information system (IBIS)

2. Design space analysis.

Question 4:

Find the web pages that illustrate the principle of consistency. You must provide one good and one bad example of consistency. You must provide the screen shot of web pages along with URL and the written explanation justifying your good and bad example in your answer. To provide the relevant examples browse the internet.

Ans: Ghost Blogging.com



DISADVANTAGES:

- Ghost is not the kind of platform to build a complete business website or e-commerce site.
- It doesn't support plugins to have custom features.
- To have better control over your Ghost site, you need to have knowledge of coding.
- There is a limited number of themes.
- Ghost (Pro) is expensive for beginners.
- Ghost does not provide free hosting service.
- Beta-testing phase
- No feedback from real users
- Lacks plugins.

ADVANTAGES:

1. Simple Yet Elegant:

The most noticeable thing about Ghost, i.e. the blogs hosted on it, is their design. These are extremely appealing to the eye due to their simple, clean, clutter less design and layout. There is no possibility of getting distracted, neither for the blogger nor for the readers.

2. **Built-in SEO:**

Ghost has built-in Search Engine Optimization features. From XML Sitemaps to Canonical Tags, Meta Data to AMP Pages, everything is in-built in Ghost. You don't need any additional plugin.

3. **Built-in Social Sharing:**

Social sharing options are in-built in Ghost. You don't have to install any plugin for social sharing buttons.

4. **Incredibly Fast**

Ghost blogs are faster than your usual blogs. This is probably due to the use of CDN.

5. **Free SSL**

Ghost sites come with free SSL certificate.

6. Free to users: -- Ghost is somewhat same as WordPress and provides a free downloadable file to build a blog. You can also make a free blog on their platform but you would have to pay for hosting your blog.

7. Simple and flexible: -- Ghost is very simple and flexible to use for beginners. You can easily make an elegant looking blog on this platform without facing any conundrums.

8. Easy for content creation: -- The user interface of Ghost is very flexible and intuitive. There is a separate screen for your content creation and preview. Whatever you type on the content creation page will reflect on the preview page of your blog thereby making your blogging experience easier.

Usability Factors:

- The pictures in the page is given are user friendly.
- The color scheming of the website is also good.
- The website is little bit complex for the user and everyone cannot use it properly.
- Some of the content is available, if you have paid for it and to continue getting access to it, we have to pay monthly fees.

So, the conclusion is that the ghost.org is a good website, user friendly, every content in the website is useful and interface made by the system is better than many websites. But the website is little bit complex and not easy to use for every user.

Link:

[Www. Ghost Blogging.com](http://Www.Ghost Blogging.com)

Question 5:

Write the Shneiderman's 8 Golden Rules.

Ans:

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

Question 6:

You are familiar with internet explorer. Explain any five usability goals in terms of internet explorer. Justify each goal with example

Ans: Usability:

1. Avoid IE6 and Get IE7 as a Second Browser:**Example**

E6 is inferior to virtually every other leading browser available today, and no one should use IE6 unless they're forced. IE7 is a very capable browser and the best to use if you watch a lot of video on demand from sites like Netflix.com or if you use Microsoft SharePoint for work. But for general browsing, IE7 is no match for Google Chrome or Mozilla Firefox, making it a great second choice.

2. IE6 is Not Compliant:

The World Wide Web Consortium (W3C) is the nonprofit body that brings member organizations, a full time staff, and the world's web community together to develop web standards. These standards seek to improve user experience and make it easy to create consistent web pages. Unfortunately, Microsoft and IE have a history of not complying with W3C standards. Instead, IE6 sought backward compatibility, rendering web pages as earlier IE versions had instead of meeting a mutually agreed upon standard.

Example

Imagine if bookstores did that. An author writes a book using all the normal rules of grammar. The book's editor makes sure that every punctuation mark is used properly in accordance with the agreed to standards. But then the clerk at the bookstore decides that we should be capitalizing the last word in the sentence instead of the first and sets to marking up the book.

3. E6 Cannot Handle PNGs:

E 6 makes transparent PNGs ugly. Portable Network Graphics or PNGs allow web developers the greatest amount of creativity and flexibility available. This powerful graphics format is smaller than GIF, has better fidelity than JPG, and offers alpha-channel transparency that is second to none. PNGs are the best graphic format for many web sites and increasing web designers are willing to tell IE6 users to go packing rather than surrender the ease of implementation that PNGs offer.

Example

Unfortunately, the 22.3 percent of web surfers who used IE6 in September 2008, did not see properly rendered PNGs. Again, consider the Future of Web Design website. Rendered in IE6, many of the site's graphics are surrounded by gray boxes—a result of IE6's feeble image support.

4. IE7 Has Fast, Effective Tabbed Browsing**Example**

In IE7, Microsoft adopted tabbed browsing or the concept that new web pages would open inside of tabs not windows. Tabs are considerably more effective and easier to navigate. Although, IE was very late to the tab game, its "new tab" button was perhaps the best user interface to date. The "new tab" rests just to the right of a user's open tabs and offers a one-click way to open a new blank tab. The feature is so easy and so popular, that developers have created a copycat "New Tab Button" plug-in for the competing Firefox browser.

5. E6 Has More Bugs than New York City:

Example

New York City with its famously large cockroaches has nothing on IE6 where bugs are concerned. In particular, IE6 mangles positioning. The folks at Positioniseverything.net have cataloged many of these quirks, including “the Peekaboo Bug” that causes text adjacent to floating boxes to vanish and reappear; “the Expanding Box Problem” wherein IE6 ignores dimensional restrictions; and “the Double Float-Margin Bug” that has IE6 multiplying margins around floating elements.