10. Web Resources


11. List of Our Publications

Journal Publications


Conference Papers Published in Conference Proceedings


Appendix

Appendix A: Questionnaire to know About “Emotional States”

Section I

1. Gender: F M

2. Education:
   a) Under Graduate
   b) Post Graduate
   c) Others

3. Are you employed? Yes No
   a) If Yes, Type of Organization: Private / Public / Government

4. Are you Student? Yes No

Section II

Which words from the following list you would like to use for emotions in your daily life most frequently? Please tick them.

<table>
<thead>
<tr>
<th>S. No</th>
<th>Type of Emotions</th>
<th>Whether it is included in your emotion vocabulary or not, If yes please Tick (√)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Happy</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Angry</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Restless</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Sad</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Satisfied</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Afraid</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Excited</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Surprised</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Pleased</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Confident</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Relaxed</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Calm</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Disgusted</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Ashamed</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Neutral</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Irritated</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Interested</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Contempt</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Dislike</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Bored</td>
<td></td>
</tr>
</tbody>
</table>
Appendix B: Questionnaire for Enriching HCI with Emotion: A Research Survey

Section I:

1. Age: __________

2. Gender:   F           M

3. Education:
   - Under Graduate
   - Doctorate
   - Post Graduate
   - Others

4. Employment: (Please choose ONE)
   - Professional (Doctor / Lawyer etc.)
   - Executive Managerial
   - Administrative
   - Sales / Marketing
   - Home Maker
   - Service / Customer Support
   - Academics
   - Technical / Engineering
   - Self Employed
   - Others

Section II:

1. How many years have you been using a desktop or laptop computer at home or at work use? _______

2. How many hours per day do you use a desktop or laptop computer? ______

3. What type of applications and programs do you typically use? (Check all that apply)
   - Email
   - Graphic Design Programs
   - Word Processing
   - Presentation Tools
   - Others
   - Internet Use
   - Chat/Instant Messaging
   - Programming Tools
   - Database Tools

4. How many years have you been using the world wide web? __________

5. How many hours per day do you spend online? Please indicate the amount of
time that you are actually using the computer while online, not simply the amount of time you are connected to the internet. ______

6. Please indicate the nature of activity doing when you are online

(browsing/shopping/chat/etc.):__________________________________________.

Section III:

Please fill out this form for each frustrating experience and the problem that you encounter while you are interacting with the computer. This should include both major problems such as computer or application crashes, and minor issues such as a program not responding the way that you need it to. Anything that frustrates you should be recorded. Add additional experiences at the end of this questionnaire as 1 -- -, 2(4), 3(i), … etc.

1. What were you trying to do?

2. On a scale of 1 to 5, how important was this task to you?

Not very important  1  2  3  4  5  Very Important

3. What software or program did the problem occur in? (Please choose any one of the following options)

(i) Email          (ii) File browsers
(iii) Chat and messaging    (iv) Presentation Software
(v) Graphic designs    (vi) Audio/Video software
(vii) Web browsing     (viii) Word processing
(ix) Database tools    (x) Searching software
(xi) Programming tools (xii) Other internet uses

4. What is your approach to solve the problems?
Rank the following choices on the scale of 1 to 9. (1: 1st Priority; 9: Last Priority)

<table>
<thead>
<tr>
<th>APPROACH</th>
<th>RANKING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ignore the problem solution</td>
<td></td>
</tr>
<tr>
<td>Found an alternative</td>
<td></td>
</tr>
<tr>
<td>Without any help, I try to fix it up.</td>
<td></td>
</tr>
<tr>
<td>I asked someone for help</td>
<td></td>
</tr>
<tr>
<td>I consulted a manual or book</td>
<td></td>
</tr>
<tr>
<td>I was unable to solve it</td>
<td></td>
</tr>
<tr>
<td>I tried again</td>
<td></td>
</tr>
<tr>
<td>I would like to take an online help</td>
<td></td>
</tr>
<tr>
<td>I knew how to solve it</td>
<td></td>
</tr>
</tbody>
</table>

5. On a scale of 1 to 5, how frustrating was this problem for you?

Not frustrating 1 2 3 4 5 Very frustrating

6. Until this problem was solved, were you able to work on something else?

_____Yes  _____No

Section IV:

From the following options based on your feeling while facing the above mentioned problems, how did you react? (Please tick the desired options)

(i) Did you feel angry at the computer?
(ii) Did you feel angry at yourself?
(iii) Did you feel helpless?
(iv) You don’t react at all?
(v) Did you feel angry at the system administration?
Section V:

1. Suppose your computer system can recognize your emotional state at any point of time. Suggest some ways in which it can behave better with you, when doing each of the following tasks.

   (i) When you are reading / composing a mail:

   (ii) When you are browsing the net:

   (iii) When you are creating documents:

   (iv) When you are using presentation tools:

   (v) When you using gaming tools:

   (vi) When you are not doing anything with the machine:

   (vii) Other scenarios:

2. If instead of a desktop, you had a robot which can recognize your emotional states at any point of time, can you suggest some similar behavioral enhancements?

   (a)

   (b)
Appendix C: Questionnaire For empirical Study of Keyboard Behaviour

Section I:

Gender: Male/Female
Age: (a) 21-25 (b) 26-30 (c) 31-35 (d) 36-40 (e) 41+
Educational Qualification: (a) UG (b) PG (d) Others

Section II:

We would like to ask you about your emotional experience or what you felt while you were using the keyboard for typing. Read the following six situations and then fill in the matrix given below:

1. User types with normal speed.
2. User types quickly (speed is higher than the usual speed).
3. User types slowly (speed is lower than the usual speed)
4. User uses the backspaces very often.
5. User hits unrelated keys on the keyboard.
6. User doesn’t use the keyboard.

Tick (√) the following emotional state (ONLY ONE) under each of the above mentioned situations.
<table>
<thead>
<tr>
<th>Emotional Categories</th>
<th>Situation 1</th>
<th>Situation 2</th>
<th>Situation 3</th>
<th>Situation 4</th>
<th>Situation 5</th>
<th>Situation 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral State</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disgust, Contempt, Angry, Irritated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relaxed, Relief, Pleased</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restless, Bored, Sad, Dislike</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delighted, Excited, Happy, Satisfied</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Appendix D: Case-Scenarios given to Participants during Data Collection for Keyboard Usage Pattern

Case-Scenario – 1.

November 27th, 2008 at 2:01 am

Well Done Media.. Like CNN IBN. They cover Full STORY. I have just watched the CNN IBN live on their website. They show them open firing, the injured people taken to the hospital.

BUT,…B..U..T, How the hell you are covering it. For covering the NEWS, these shameless people put the camera over the HEAD of Military people, who are helping out the process… Pushing those Military/police people and making more work for them. Reporters are Rushing to the Injured People.. Just to take a Picture of they injury? Like They are a Monument?

If you see one of the footage, in which they show the terrorist are firing from the Police van. In the end of the footage, one person got injured on his hand and he was running here & there for help. The camera person sits besides him and covers this NEWS. Camera man moves this other hand, which is supporting the injured hand and try to Cover the Full BLOODY HAND in his NEWS.

So, what is more important… NEWS covering for the People sitting at HOME OR Helping the GUY suffering in front of you?
After reading the above mentioned situation, which kind of emotional feeling do you experience, (tick any ONE)

- Disgust
- Contempt
- Angry
- Irritated
- Neutral
- Others

Justify your reply:

Sample Paragraph for Typing:

Who says terror has no face? Terror has a face in all those humans who are alive to tell a tale of the brutal acts inflicted upon them. With the Mumbai siege finally over, what now remains is the act of picking up the pieces. Mumbai attacks have proved that our security systems have gaps and we have failed to fill them. The horror of the act is too great to be captured in words.
Case-Scenario – 2.

She gives me hugs, nice hugs. The other day we were sitting on the bed waiting for something and she started crawling towards me, and she got most of the way and then just reached her arms out all the way, which just touched me, and threw herself forward onto me and hugged me, resting her head on me. Sometimes when I am doing things she will scuttle herself over to me and pull on my dress, or touch my feet. Hug me, Mummy. Sometimes when she feels like chatting, but doesn’t know what to say, she just softly says Mummmeeeee, mummmeee, mumeeeee. I really love that.

It is exciting for new parents to watch their newborn's behaviors and activities. However, in some cases, the absence or presence of a behavior or activity may indicate a problem.

After reading the above mentioned situation, which kind of emotional feeling do you experience, (tick any ONE )

- Relaxed
- Relief
- Affection
- Pleased
- Neutral
- Others

Justify your reply:

Sample Paragraph for Typing:

*Bonding—the term for the close emotional tie that develops between parents and baby at birth—was the buzzword of the 1980's. Dr's. Marshall H. Klaus and John H. Kennell explored the concept of bonding in their classic book *Maternal- Infant Bonding*. This allows you to transfer your life-giving love for the infant inside to care giving love on the outside.*
Case-Scenario – 3.

I got an appointment as a coach of a high school’s football team. It is the beginning of the season. The situation I face on the first day is discouraging. Nobody came to practice on time. There is no warm-up calisthenics for physical fitness. There is no drill and practice in the fundamentals or breaking the game down into basics, such as passing, shooting, heading and guarding. There is no playmaking, just everybody playing and looking for a change to dribble and shoot. The last three years’ record has been miserable. The boys have accepted that they are the weakest team in the area and don’t hope to do any better this year.

After reading the above mentioned situation, which kind of emotional feeling do you experience, (tick any ONE)

- Restless
- Bored
- Sad
- Dislike
- Neutral
- Others

Justify your reply:

Sample Paragraph for Typing:

“The value of work is not measured by the kind of work, but by the fact that the one who does it is a person. “This leads to an important ethical conclusion: while we are all destined to work, “work is for us” not “we for work”. Once you have set realistic, measurable and time-bound goals, you have made a great start.”
Case-Scenario – 4.

He didn’t like the curry, and he didn’t like my cake. He said that my biscuits are too hard…. Not like his mother used to make. I didn’t make the coffee right, he didn’t like the stew. I didn’t mend his socks the way his mother used to do it. I pondered for an answer I was looking for a clue. Isn’t there anything I could do to match his mother shoe? Then I smiled as I saw light, one thing I could definitely do. I turned around and slapped him tight……Like his mother used to!!!

After reading the above mentioned situation, which kind of emotional feeling do you experience, (tick any ONE )

• Delighted
• Happy
• Satisfied
• Excited
• Neutral
• Others

Justify your reply:

Sample Paragraph for Typing:

“The tragedy of life is not death; but what we let die inside us while we live.”
Expressing yourself clearly in a way that doesn’t violate the rights of others but respects your own has many bonuses: self direction, good feelings, better relationships, effective teamwork. If we can get ourselves to act differently, we will think differently. Our behaviour shapes our thinking more than the reverse.
Case-Scenario – 5.

Success in the pharma industry is a function of time to market. Across the industry value chain, research and business-process cycle times determine who reaps the profits from years of intensive research and development. Pharma companies will need to go beyond traditional R&D in order for their globalization strategies to succeed. Portfolio management, networked pharma, collaboration with biotechs, meeting short-term investor expectations coupled with convergence (ERP investment), integration, RFID, regulatory compliance and improvements to sales and marketing will be vital.

After reading the above mentioned situation, which kind of emotional feeling do you experience, (tick any ONE)

- Neutral
- Others

Justify your reply:

Sample Paragraph for Typing:

The future of pharma will ultimately see pharma manufacturers, regulators, prescribes and patients taking advantage of all the technological advances throughout the pharma value chain. With product-discovery and development cycles that often total seven-ten years, strictly enforced patent-protection time limits, and total development costs often approaching US$1 billion for each new drug, pharma executives need to make complex resource-allocation and prioritization decisions at every phase of the pharma value chain.