Human Information Interaction Revolution

Pawan K. Gupta

pgupta@cs.uml.edu

University of Massachusetts Lowell
Dept. of Computer Science

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ABSTRACT

We live in a world, where good presentation takes importance over good information. Computers are an integral part of our lives; however, they do have this major flaw as well. It is time for Human Computer Interaction to take a back seat and let Human Information Interaction take over the world. Computers are not only used to play games, do taxes, or plan vacations, there could be human lives at stake if the software we use provides incorrect information. We must get our priorities straight; it’s time to start giving importance to information objects, there has been enough progress in the user interface field.

Keywords
Human-information interaction, human-computer interaction, user-interface

INTRODUCTION

Computers are vital part of our daily lives. To do any research, we don’t talk to our neighbors or friends; we go to the World Wide Web. When we have a conversation with someone, we can ask questions; if there is any confusion, when we read information on the World Wide Web, we do not have facilities to ask questions. People did not mind using products with bad information, because products were simple. Products are much more challenging now, they are full of information, which makes the job of a technical writer a lot harder. Technical writer job requirements have changed, not only do they have to be expert in writing; they also need to have some technical background to understand the product's complexity. The issue is not with the human interaction with computers, but the user's struggle to interact and interpret the information. To be clear –Human Information Interaction is not about writing documents, designing interactive web-sites, and endless features, Human Information Interaction is about understanding all user needs and communicating effectively with them.
HUMAN-INFORMATION INTERACTION NEED

Human Computer Interaction (HCI) presents the Information on a computer and Human Information Interaction (HII) presents the information that is thought out through the cognitive process. How people interact and then interpret information is a missing key point in HCI. Even the best user interface can lead people to make wrong decisions; complete accurate information helps the user to make an educated assessment. HII helps the user dissect information, and HCI presents the information in a nice format. A design that ignores HII can be the result of bad usability feature, human performance, bad decisions, and could be very costly.

With the help of internet search, many forms of result can be returned on any given topic. Having options is a good thing in life, but in this case, which result to choose, can be very hard. Sometimes we simply have to make a guess, and it’s not a good practice. Information should go through the HII process; which takes the guess element out and helps the user make good decisions. Assume, can be a very scary word in the English language. Often, when a writer puts information out so people can use it, the writer makes some assumptions. There is nothing wrong with this thought process, because after all, they are human, and cannot know it all. However, it is their responsibility to document these assumptions in the beginning, before the user starts interacting with the information. Writers must know their audience before making any assumptions. These assumptions have to be thought out through cognitive process. For example, a textbook or a reference book is a good example of information interaction. I used to never read the Preface of the book; always started with chapter 1. Later in the book, I realized this book had some other prerequisite and had to drop the book. The preface is a great way to find out about the book prerequisite. It gives us a better understanding of what the user can expect from this book. I believe, a book is a good example of HII; the preface provides information we need before reading chapter 1.

Designing web products requires unique skills. Hours and hours of long discussion take place in meetings on user-interface (UI), color, layout to make rich UI. Everybody is worried about the looks, instead of how the user is going to interact with information which is being displayed on the web-page. I do understand, rich UI help sells products, but, if information interaction is missing, then, that could easily kill the product as well. The user will be a lot happier if s/he got what they were looking for on a web-site, rather than just rich UI.

Many companies are acknowledging the need for more user input. Managers and engineers attend user conferences and have discussions with users directly to get their thoughts; they ask users to fill in surveys to get a better idea of what the user is expecting in the product. It’s a
good start but, still this technique does not comply with HII. Problem with this method is, if the product is used by many different companies, then its impossible to import all the changes that managers and engineers have received at the conference. It’s almost like writing a new product from scratch, which is not possible. Taking customers suggestions is a very good idea, but, sometime the customer is not clear on the HII concept, which could take the product in a different direction.

HII experts think beyond the user-interface. They think about their audience needs, how audience the thinks, and will react in trouble situations, what’s the age range of the audience. The goal is to make information simple and useful. An HII expert must be qualified in many other areas than just computers. Information should be presented in such a way, that the user wants to read more about it; they should be able to use it. Once my professor told me regarding a computer program, “garbage in, garbage out”, and this same principal applies to information. If the information which the user is getting is useless, the response from the user will also be useless.

HII can be broken down in four different areas: interact, find, interpret, and use. HII does inherit some features from HCI. Features such as, interact and find are parts of HCI. Therefore, without HCI success, HII cannot be successful. Users must first find information using internet search, books etc. then the user interacts with that information. If the user-interface is not good, the user stops and moves on to different search results. Once the interface is selected, the user starts dissecting information. This is a first key step in the HII process. If user has successfully dissected the information and it helps him to make a decision HII is successful. If the user was able to interpret information, but not able to make a decision, or if the user knew the final decision but some information was missing while the user was dissecting the information, HII fails.

Just like data modeling, various troubleshooting situation scenarios must be discussed during the software development process. Font, color, and design are important, but we need to consider user cognitive process as well. We must think how different people will react in different situation, when they interact with information. Many articles and books are being written and research is being done in cognitive psychology, now it’s a opportunity for software to combine cognitive psychology and Human Computer Interaction, to improve information interaction with its users.

Thanks to the growing technology, we are loaded with information. When an application was desktop-based, the user used to think twice before installing the application to view information, but now applications are web-based, and the user does not need to install
applications. People are happy about this change, but it does raise many questions like: Is all the information we see is correct? How can there be so many answers to one problem? What can we do to solve this growing problem? Should we design standards for every search topic? There are so many more questions like these that arise every day. It’s becoming harder and harder to choose information. Dr. William Ellery Channing had said, “It is not the quantity but the quality of knowledge which determines the mind's dignity.” Rich user interfaces, software accessibility, software loaded with features; software performance cannot make up for wrong information.

CONCLUSION

It is more important for us to focus on information interaction than on computer interaction. Computers have been around for a long time; many books, articles, designs, and software had been written about HCI. It’s time to move our focus from HCI to HII. Everywhere we look; work, personal life, social life, press etc. there is so much good and bad information flying around, causing people to make costly decision based on wrong or incomplete information. HCI does not help us make better decisions; it’s the Human Information Interaction that matters most.

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