

**IxD LAYOUT AND BEHAVIOUR FOR A ROOM RESERVATION SYSTEM**

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**UNIVERSITY UTARA MALAYSIA**

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# **IxD LAYOUT AND BEHAVIOUR FOR A ROOM RESERVATION SYSTEM**

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in partial fulfilment of the requirement for the degree  
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By

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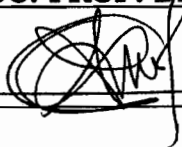
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## ABSTRACT

*Interacting with a system can be pleasurable when the design is good, but this is not true for a system that was poorly designed. Poor design emerges mostly when the interface which to the user is the system was designed poorly in terms of interaction design elements. With such an interface, accomplishing task become tedious, consumes a lot of time and effort as users interact with the system. User usually get frustrated and dissatisfied as accomplishing task becomes complex. A room reservation system (RRS) was explored as the study domain which attempted to solve the problems in designing a poor system in terms of Interaction design elements of layout and behaviour. A conceptual design of a RRS was designed after research on the existing interface of RRS. Selected elements, namely layout and behaviour were compared and tabulated. The deficiencies in the existing interface were improved in the new concept. A high fidelity prototype was designed from the concept which was evaluated with Questionnaire for user interface satisfaction (QUIS).*

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## DEDICATION

*To my late mum Hajiya Hassana Aliyu, my late sisters Amina Aliyu and Maryam Aliyu,  
may your souls rest in peace, Amin.*

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## LIST OF ABBREVIATIONS

$B_n$	Behaviour element (n)
EUC	End User Computing
HAI	Human Agent Interaction
HCIL	Human Computer Interaction Laboratory
$H_n$	Horizontal grid line (n)
ISS	Interface Satisfactory Score
IxD	Interaction Design
IxDA	Interaction Design Association
$L_n$	Layout element (n)
$L_m$	Line number (m)
PDA	Personal Digital Assistant
QUIS	Questionnaire for User Interface Satisfaction
RRS	Room Reservation System
System A	University of Tampere Library Reservation System
System B	<a href="http://musb.sourceforge.net">musb.sourceforge.net</a> Room Reservation System
System C	Room Booking System V2.2
UCD	User Centred Design
UI	User Interface
USI	User Satisfaction Index
$V_n$	Vertical Grid Line number

## **CHAPTER ONE**

### **INTRODUCTION**

Interaction design (IxD) is a design field concern with designing interactive products that are pleasurable to use and provides user satisfaction. This field is concern with the behaviour of interactive products for example the room reservation system which users interact with to accomplish the task of reserving resources for use. The behaviour of a product is considered one of the elements of IxD, other elements includes form and content. One of the sub elements of form is the layout. Layout is the sizing, spacing, and placement of content within an interface. Effective layout is crucial in interactive system as it helps users to find what they are looking for quickly, as well as making the interface appearance visually appealing. The study is on the layout and behaviour element of a room reservation system.

#### **1.1 Background**

Systems are designed for user to interact with to accomplish a specific task. When a task is quickly accomplished by a user, they could be a possibility that the user is an expert user, the system is easy to use or has been easily learned or the interface has been designed properly. Whichever the reason, it has to do with the user interacting with the system.

Interacting with a poorly designed system could lead to frustration (Preece, Rogers, & Sharp, 2002; 2007), this is true especially if the task is to be completed and the behaviour of the system is not favourable. The task of completing a room reservation by a user could amount to frustration and dissatisfaction in circumstances like poorly design interface and bad behaviour to mention a few.

The contents of  
the thesis is for  
internal user  
only



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