



Human Factors Design Handbook

**Wesley E. Woodson, Barry Tillman, P.
Tillman**



Human Factors Design Handbook:

Human Factors Design Handbook - Information and Guidelines for the Design of Systems, Facilities, Equipment, and Products for Human Use Wesley E. Woodson, Barry Tillman, P. Tillman, 1992

Human Factors and Ergonomics Design Handbook, Third Edition Rhonda Rose-Sundholm, Peggy Tillman, David J. Fitts, Barry Tillman, 2016-05-09 Master the art of user centric planning and design This thoroughly revised guide offers complete coverage of the latest trends and advances in ergonomics and psychology and lays out practical applications for today s designers Written by a team of experts Human Factors and Ergonomics Design Handbook Third Edition shows how to maximize functionality while reducing injuries and minimizing the impact on physical and psychological health The ubiquitous use of smartphones tablets and other high tech equipment is discussed in full detail New chapters explain medical systems robotics handheld devices cognitive workload and the motion environment Inside you ll find human friendly design techniques for Architecture transportation and industrial systems Military space communications agriculture and consumer product systems Doors windows hatches and equipment closures Parking walkways hallways catwalks and sidewalks Ramps stairs elevators escalators and moving walkways Bathrooms restrooms locker rooms bedrooms and berthing subsystems Kitchens galleys dining rooms and food service facilities Offices auditoriums theaters sports facilities and special workplaces Lighting and sound systems furniture and appliances Visual and auditory displays computer controls fasteners and tools

[Handbook of Human Factors and Ergonomics](#) Gavriel Salvendy, 2012-05-24 The fourth edition of the Handbook of Human Factors and Ergonomics has been completely revised and updated This includes all existing third edition chapters plus new chapters written to cover new areas These include the following subjects Managing low back disorder risk in the workplace Online interactivity Neuroergonomics Office ergonomics Social networking HF E in motor vehicle transportation User requirements Human factors and ergonomics in aviation Human factors in ambient intelligent environments As with the earlier editions the main purpose of this handbook is to serve the needs of the human factors and ergonomics researchers practitioners and graduate students Each chapter has a strong theory and scientific base but is heavily focused on real world applications As such a significant number of case studies examples figures and tables are included to aid in the understanding and application of the material covered

Human Factors Design Handbook Wesley E. Woodson, 1981

Handbook of Human Factors in Medical Device Design Matthew Bret Weinger, Michael E. Wiklund, Daryle Jean Gardner-Bonneau, 2010-12-13 Developed to promote the design of safe effective and usable medical devices Handbook of Human Factors in Medical Device Design provides a single convenient source of authoritative information to support evidence based design and evaluation of medical device user interfaces using rigorous human factors engineering principles It offers guidance

Human Factors and Ergonomics in Consumer Product Design Waldemar Karwowski, Marcelo M. Soares, Neville A. Stanton, 2011-06-22 Every day we interact with thousands of consumer products We not only expect them to perform their functions safely reliably and efficiently but

also to do it so seamlessly that we don't even think about it. However, with the many factors involved in consumer product design from the application of human factors and ergonomics principles to reducing risks of malfunction and the total life cycle cost, well, the process just seems to get more complex. Edited by well-known and well-respected experts, the two volumes of *Handbook of Human Factors and Ergonomics in Consumer Product Design* simplify this process. The second volume, *Human Factors and Ergonomics in Consumer Product Design: Uses and Applications*, discusses challenges and opportunities in the design for product safety and focuses on the critical aspects of human-centered design for usability. The book contains 14 carefully selected case studies that demonstrate application of a variety of innovative approaches that incorporate Human Factors and Ergonomics (HF/E) principles, standards, and best practices of user-centered design, cognitive psychology, participatory macro ergonomics, and mathematical modeling. These case studies also identify many unique aspects of new product development projects which have adopted a user-centered design paradigm as a way to attend to user requirements. The case studies illustrate how incorporating HF/E principles and knowledge in the design of consumer products can improve levels of user satisfaction, efficiency of use, increase comfort, and assure safety under normal use as well as foreseeable misuse of the product. The book provides a comprehensive source of information regarding new methods, techniques, and software applications for consumer product design.

Human Factors/ergonomics Handbook for the Design for Ease of Maintenance United States. Department of Energy, 2001. *Ergonomics Handbook 1, Human Factors Design Data* Philip Ashby, 1978. **Handbook of Human Factors and Ergonomics in Consumer Product Design, 2 Volume Set** Waldemar Karwowski, Marcelo Soares, Neville A. Stanton, 2011-06-22. Every day we interact with thousands of consumer products. We not only expect them to perform their functions safely, reliably, and efficiently, but also to do it so seamlessly that we don't even think about it. However, with the many factors involved in consumer product design from the application of human factors and ergonomics principles to reducing risks of malfunction and the total life cycle cost, well, the process just seems to get more complex. Edited by well-known and well-respected experts, the two volumes of *Handbook of Human Factors and Ergonomics in Consumer Product Design* simplify this process. A two-volume set, the handbook provides a comprehensive source of information regarding new Human Factors and Ergonomics (HF/E) methods, techniques, and software applications for consumer product design. It explores an effective body of knowledge for improving quality of life and safety for millions of users of consumer products with a variety of needs and expectations. It delineates how the Human Factors and Ergonomics (HF/E) body of knowledge can be used as a tool for designing products that meet consumer expectations for ease of use, efficiency, comfort, safety, and adaptability, therefore contributing to consumer satisfaction. While there is substantial and convincing evidence that the application of HF/E knowledge can improve critical features of consumer products, until now there has been no comprehensive, updated resource that examines this knowledge and how to apply it. In a clear discussion of methods backed up by case studies, this book provides the full scope of knowledge required when designing consumer

products with better performance and increased satisfaction The set includes Human Factors and Ergonomics in Consumer Product Design Methods and Techniques and Human Factors and Ergonomics in Consumer Product Design Uses and Applications Handbook of Human Factors and Ergonomics Methods Neville Stanton,2005 This book delivers an authoritative and practical account of methods that incorporate human capabilities and limitations environmental factors human machine interaction and other factors into system design It describes 83 methods in a standardized format promoting the use of methods that may have formerly been unfamiliar to designers Each of the six sections covers a specialized field of ergonomics with a representative selection of associated methods The sections highlight facets of human factors and ergonomics in systems analysis design and evaluation Standard descriptions of methods encourage browsing through several potential methods before tackling a problem **Handbook of Human Factors in Web Design** Kim-Phuong L. Vu,Robert W. Proctor,2011-04-25 The Handbook of Human Factors in Web Design covers basic human factors issues relating to screen design input devices and information organization and processing as well as addresses newer features which will become prominent in the next generation of Web technologies These include multimodal interfaces wireless capabilities and agents t Ergonomics - the Human Factor ,1994 Handbook of Standards and Guidelines in Human Factors and Ergonomics Waldemar Karwowski,Anna Szopa,Marcelo M. Soares,2024-10-04 With an updated edition including new material in additional chapters this one of a kind handbook covers not only current standardization efforts but also anthropometry and optimal working postures ergonomic human computer interactions legal protection occupational health and safety and military human factor principles **Handbook of Warnings** Michael S. Wogalter,2006-01-20 A technical discussion that includes theory research and application this book describes warning design standards and guidelines aspects of law relevant to warnings such as government regulations case trial litigation and the role of expert testimony in these cases and international health medical and marketing issues Broken into thirteen *Human Factors in System Design, Development, and Testing* David Meister,Thomas P. Enderwick,2001-06-01 Human Factors in System Design Development and Testing describes engineering system design as a behavioral process a process which raises questions the designer must answer It focuses on the concepts underlying the design process culminating in a behavioral theory of the design process Special effort has been made to depict human facto **System Analysis, Design, and Development** Charles S. Wasson,2005-12-13 Written in a practical easy to understand style this text provides a step by step guide to System Analysis and Engineering by introducing concepts principles and practices via a progression of topical lesson oriented chapters Each chapter focuses on specific aspects of system analysis design and development and includes definitions of key terms examples author s notes key principles and challenging exercises that teach readers to apply their knowledge to real world systems Concepts and methodologies presented can be applied by organizations in business sectors such as transportation construction medical financial education aerospace and defense utilities government and others regardless of size An excellent undergraduate or

graduate level textbook in systems analysis and engineering this book is written for both new and experienced professionals who acquire design develop deploy operate or support systems products or services Human Factors in Product Design William H. Cushman, Daniel J. Rosenberg, 1991 Recently the use of human factors engineering in product design has become much more widely accepted It is gaining recognition as an essential part of the product design and development process for both consumer products and commercial products The aim of this volume is to show how human factors technology can be effectively applied during the product design and development process to improve product usability user product performance user satisfaction and product safety A second objective is to assemble a wealth of design information for human factors practitioners and others involved with the design of consumer and commercial products for both national and international markets The book is also suitable as a text for courses and seminars concerned with the application of human factors technology to design Earlier works on this topic have focused mainly on designing a few specific types of products or have considered product design only within the context of human factors engineering in general Available both in hardback and paperback this is the first publication of its kind to focus on the subject of human factors in product design providing a blend of theory data detailed examples guidelines and practical advice in one volume With over 180 tables figures and photographs as well as 640 references extensive cross referencing and keyword index the volume will be essential reading for all those involved in work research or study related to product development *Principles of Biomechanics* Ronald Huston, 2008-12-22 Research and study in biomechanics has grown dramatically in recent years to the extent that students researchers and practitioners in biomechanics now outnumber those working in the underlying discipline of mechanics itself Filling a void in the current literature on this specialized niche *Principles of Biomechanics* provides readers with a so *Human Factors Methods* Stanton, 2017-11-10 *Human Factors Methods A Practical Guide for Engineering and Design* presents more than ninety design and evaluation methods and is designed to act as an ergonomics methods manual aiding both students and practitioners The eleven sections of the book represent the different categories of ergonomics methods and techniques that can be used in the evaluation and design process Offering a how to text on a substantial range of ergonomics methods that can be used in the design and evaluation of products and systems it is a comprehensive point of reference for all these methods An overview of the methods is presented in chapter one with a methods matrix showing which can be used in conjunction The following chapters detail the methods showing how to apply them in practice Flowcharts procedures and examples cover the requirements of a diverse audience and varied applications of the methods The final chapter presents a case study of methods being used together in a system evaluation project Handbook of Standards and Guidelines in Ergonomics and Human Factors Waldemar Karwowski, 2005-12-16 A comprehensive review of international and national standards and guidelines this handbook consists of 32 chapters divided into nine sections that cover standardization efforts anthropometry and working postures designing manual material human computer interaction

occupational health and safety legal protection military human factor standar

Thank you definitely much for downloading **Human Factors Design Handbook**. Maybe you have knowledge that, people have look numerous period for their favorite books taking into consideration this Human Factors Design Handbook, but end taking place in harmful downloads.

Rather than enjoying a fine PDF next a cup of coffee in the afternoon, otherwise they juggled considering some harmful virus inside their computer. **Human Factors Design Handbook** is easy to use in our digital library an online entrance to it is set as public therefore you can download it instantly. Our digital library saves in multiple countries, allowing you to get the most less latency times to download any of our books with this one. Merely said, the Human Factors Design Handbook is universally compatible afterward any devices to read.

https://py.bijouxmedusa.com/public/uploaded-files/Download_PDFS/incoming%20material%20inspection%20procedure%20pdfslibforme.pdf

Table of Contents Human Factors Design Handbook

1. Understanding the eBook Human Factors Design Handbook
 - The Rise of Digital Reading Human Factors Design Handbook
 - Advantages of eBooks Over Traditional Books
2. Identifying Human Factors Design Handbook
 - Exploring Different Genres
 - Considering Fiction vs. Non-Fiction
 - Determining Your Reading Goals
3. Choosing the Right eBook Platform
 - Popular eBook Platforms
 - Features to Look for in an Human Factors Design Handbook
 - User-Friendly Interface
4. Exploring eBook Recommendations from Human Factors Design Handbook
 - Personalized Recommendations

- Human Factors Design Handbook User Reviews and Ratings
- Human Factors Design Handbook and Bestseller Lists
- 5. Accessing Human Factors Design Handbook Free and Paid eBooks
 - Human Factors Design Handbook Public Domain eBooks
 - Human Factors Design Handbook eBook Subscription Services
 - Human Factors Design Handbook Budget-Friendly Options
- 6. Navigating Human Factors Design Handbook eBook Formats
 - ePub, PDF, MOBI, and More
 - Human Factors Design Handbook Compatibility with Devices
 - Human Factors Design Handbook Enhanced eBook Features
- 7. Enhancing Your Reading Experience
 - Adjustable Fonts and Text Sizes of Human Factors Design Handbook
 - Highlighting and Note-Taking Human Factors Design Handbook
 - Interactive Elements Human Factors Design Handbook
- 8. Staying Engaged with Human Factors Design Handbook
 - Joining Online Reading Communities
 - Participating in Virtual Book Clubs
 - Following Authors and Publishers Human Factors Design Handbook
- 9. Balancing eBooks and Physical Books Human Factors Design Handbook
 - Benefits of a Digital Library
 - Creating a Diverse Reading Collection Human Factors Design Handbook
- 10. Overcoming Reading Challenges
 - Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
- 11. Cultivating a Reading Routine Human Factors Design Handbook
 - Setting Reading Goals Human Factors Design Handbook
 - Carving Out Dedicated Reading Time
- 12. Sourcing Reliable Information of Human Factors Design Handbook
 - Fact-Checking eBook Content of Human Factors Design Handbook

- Distinguishing Credible Sources
- 13. Promoting Lifelong Learning
 - Utilizing eBooks for Skill Development
 - Exploring Educational eBooks
- 14. Embracing eBook Trends
 - Integration of Multimedia Elements
 - Interactive and Gamified eBooks

Human Factors Design Handbook Introduction

In the digital age, access to information has become easier than ever before. The ability to download Human Factors Design Handbook has revolutionized the way we consume written content. Whether you are a student looking for course material, an avid reader searching for your next favorite book, or a professional seeking research papers, the option to download Human Factors Design Handbook has opened up a world of possibilities. Downloading Human Factors Design Handbook provides numerous advantages over physical copies of books and documents. Firstly, it is incredibly convenient. Gone are the days of carrying around heavy textbooks or bulky folders filled with papers. With the click of a button, you can gain immediate access to valuable resources on any device. This convenience allows for efficient studying, researching, and reading on the go. Moreover, the cost-effective nature of downloading Human Factors Design Handbook has democratized knowledge. Traditional books and academic journals can be expensive, making it difficult for individuals with limited financial resources to access information. By offering free PDF downloads, publishers and authors are enabling a wider audience to benefit from their work. This inclusivity promotes equal opportunities for learning and personal growth. There are numerous websites and platforms where individuals can download Human Factors Design Handbook. These websites range from academic databases offering research papers and journals to online libraries with an expansive collection of books from various genres. Many authors and publishers also upload their work to specific websites, granting readers access to their content without any charge. These platforms not only provide access to existing literature but also serve as an excellent platform for undiscovered authors to share their work with the world. However, it is essential to be cautious while downloading Human Factors Design Handbook. Some websites may offer pirated or illegally obtained copies of copyrighted material. Engaging in such activities not only violates copyright laws but also undermines the efforts of authors, publishers, and researchers. To ensure ethical downloading, it is advisable to utilize reputable websites that prioritize the legal distribution of content. When downloading Human Factors Design Handbook, users should also consider the potential security risks associated with online platforms. Malicious actors may exploit vulnerabilities in unprotected websites to distribute malware or steal personal

information. To protect themselves, individuals should ensure their devices have reliable antivirus software installed and validate the legitimacy of the websites they are downloading from. In conclusion, the ability to download Human Factors Design Handbook has transformed the way we access information. With the convenience, cost-effectiveness, and accessibility it offers, free PDF downloads have become a popular choice for students, researchers, and book lovers worldwide. However, it is crucial to engage in ethical downloading practices and prioritize personal security when utilizing online platforms. By doing so, individuals can make the most of the vast array of free PDF resources available and embark on a journey of continuous learning and intellectual growth.

FAQs About Human Factors Design Handbook Books

How do I know which eBook platform is the best for me? Finding the best eBook platform depends on your reading preferences and device compatibility. Research different platforms, read user reviews, and explore their features before making a choice. Are free eBooks of good quality? Yes, many reputable platforms offer high-quality free eBooks, including classics and public domain works. However, make sure to verify the source to ensure the eBook credibility. Can I read eBooks without an eReader? Absolutely! Most eBook platforms offer webbased readers or mobile apps that allow you to read eBooks on your computer, tablet, or smartphone. How do I avoid digital eye strain while reading eBooks? To prevent digital eye strain, take regular breaks, adjust the font size and background color, and ensure proper lighting while reading eBooks. What the advantage of interactive eBooks? Interactive eBooks incorporate multimedia elements, quizzes, and activities, enhancing the reader engagement and providing a more immersive learning experience. Human Factors Design Handbook is one of the best book in our library for free trial. We provide copy of Human Factors Design Handbook in digital format, so the resources that you find are reliable. There are also many Ebooks of related with Human Factors Design Handbook. Where to download Human Factors Design Handbook online for free? Are you looking for Human Factors Design Handbook PDF? This is definitely going to save you time and cash in something you should think about. If you trying to find then search around for online. Without a doubt there are numerous these available and many of them have the freedom. However without doubt you receive whatever you purchase. An alternate way to get ideas is always to check another Human Factors Design Handbook. This method for see exactly what may be included and adopt these ideas to your book. This site will almost certainly help you save time and effort, money and stress. If you are looking for free books then you really should consider finding to assist you try this. Several of Human Factors Design Handbook are for sale to free while some are payable. If you arent sure if the books you would like to download works with for usage along with your computer, it is possible to download free trials. The free guides make it easy for someone to free access online library for download books to your device. You can get free

download on free trial for lots of books categories. Our library is the biggest of these that have literally hundreds of thousands of different products categories represented. You will also see that there are specific sites catered to different product types or categories, brands or niches related with Human Factors Design Handbook. So depending on what exactly you are searching, you will be able to choose e books to suit your own need. Need to access completely for Campbell Biology Seventh Edition book? Access Ebook without any digging. And by having access to our ebook online or by storing it on your computer, you have convenient answers with Human Factors Design Handbook To get started finding Human Factors Design Handbook, you are right to find our website which has a comprehensive collection of books online. Our library is the biggest of these that have literally hundreds of thousands of different products represented. You will also see that there are specific sites catered to different categories or niches related with Human Factors Design Handbook So depending on what exactly you are searching, you will be able to choose ebook to suit your own need. Thank you for reading Human Factors Design Handbook. Maybe you have knowledge that, people have search numerous times for their favorite readings like this Human Factors Design Handbook, but end up in harmful downloads. Rather than reading a good book with a cup of coffee in the afternoon, instead they juggled with some harmful bugs inside their laptop. Human Factors Design Handbook is available in our book collection an online access to it is set as public so you can download it instantly. Our digital library spans in multiple locations, allowing you to get the most less latency time to download any of our books like this one. Merely said, Human Factors Design Handbook is universally compatible with any devices to read.

Find Human Factors Design Handbook :

[incoming material inspection procedure pdfslibforme](#)

inside the tornado by geoffrey a moore

interactive reader section 4 answer key

improving safety and productivity in oil and gas operations

[intelligence in nature an inquiry into knowledge jeremy narby](#)

introduction to digital image processing

internal audit risk based methodology pwc audit and

[ingenico ict250](#)

indira gandhi a biography pupul jayakar

[introduction to engineering surveying ce 1305 levelling](#)

intermediate accounting 12th edition kieso weygandt and warfield download

intermittent fasting kinobody

introduction to combustion turns 2nd solution manual
information technology project management 6th edition kathy schwalbe
intermediate accounting kieso 15th edition solutions manual

Human Factors Design Handbook :

Timeshare Agent License - NV Real Estate Division What's New? ... Timeshare Agent License ... Education: 14 hour pre-licensing timeshare education. Exam: Original timeshare passing results (Testing). ... BACKGROUND ... Nevada Timeshare Agent Licensing The state of Nevada requires 14 hours of Timeshare pre licensing education. Key Realty School offers an online training program designed to complete and comply ... Timeshare - BASIC Pre-licensing Package Timeshare - BASIC Pre-licensing Package. Enroll now for \$119.00. This 14-hour course is designed for students seeking to obtain their Nevada time share license. Pearson Vue - NV Real Estate Division Pearson VUE. To register for the following licensing exams: Salesperson Broker Property Management Business Broker Community Management Timeshare Test #1 Flashcards In Nevada who may sell a developer's timeshare interest? A. OPC Representative B. Real Estate Salesman/Broker and Timeshare Sales Agent C. Out of state broker Timeshare Test part2 Flashcards What is the Nevada timeshare law called? NRS 119a ; How much is the renewal fee for a timeshare agent license? \$200 ; How many hours of continuing education must ... Timeshare License Exam Flashcards Study with Quizlet and memorize flashcards containing terms like How long is a TSA license valid for?, If a timeshare AGENT initially becomes licensed on ... Timeshare Test #2 | 50 Questions with 100% Correct ... Jun 4, 2023 — The Nevada Revised Statute that deals with the timeshare industry in Nevada is titled: A. ... Exam (elaborations) - Timeshare test 1 study guide ... Nevada Timeshare License Qualifications - Sapling You must pass the Nevada timeshare test administered on a computer by PSI. It is a 90-minute test, and taking it costs \$100. Nevada Real Estate Division May 29, 2023 — Pearson VUE delivers certification exams for Nevada Real Estate ... Timeshare Agent. Real Estate Practice Tests. Pearson VUE offers Broker and ... Mark Scheme (Results) Summer 2015 Edexcel and BTEC qualifications are awarded by Pearson, the UK's largest awarding body. We provide a wide range of qualifications including academic, ... Mark Scheme (Results) Summer 2015 Edexcel and BTEC qualifications are awarded by Pearson, the UK's largest awarding body. We provide a wide range of qualifications including academic, ... Mark Scheme (Results) Summer 2015 Edexcel and BTEC qualifications are awarded by Pearson, the UK's largest awarding body. We provide a wide range of qualifications including academic, . June 2015 Paper 4H. We have used B marks, M marks and A marks in a similar, but not identical, way that the exam board uses these marks within their mark schemes. We have done this ... Mark Scheme (Results) Summer 2015 Edexcel and BTEC qualifications are awarded by Pearson, the UK's largest awarding body. We provide a wide range of qualifications including academic, ... Mark Scheme (Results) Summer 2015 Edexcel and BTEC qualifications are awarded by

Pearson, the UK's largest awarding body. We provide a wide range of qualifications including academic, ... Mark Scheme (Results) Summer 2015 The Edexcel Mathematics mark schemes use the following types of marks: • M marks: Method marks are awarded for 'knowing a method and attempting to apply it ... Mark Scheme (Results) Summer 2015 Edexcel and BTEC qualifications are awarded by Pearson, the UK's largest awarding body. We provide a wide range of qualifications including academic, ... Mark Scheme (Results) Summer 2015 Jun 9, 2015 — 2. The Edexcel Mathematics mark schemes use the following types of marks: 'M' marks. These are marks given for a correct method or an ... Edexcel - C4 June 2015 Jun 4, 2015 — Edexcel - C4 June 2015. Paper Info... Question Paper: View Official Paper; Mark Scheme: View Mark scheme; Examiners' Report: View Examiners ... ANSWER KEY - WORKBOOK 8.1. 1. 2 I was about to leave the office when the phone rang. 3 You weren't supposed to tell her the secret! 4 We were meant to pay in advance. 7A WORKBOOK ANSWERS 1 Three from: measuring heart beats, temperature, urine tests, blood tests. Accept other sensible responses. 2 The patient has spots. Answers © Pearson. 9. K c students' own answers, but should be backed up with a sensible reason. 4 Answers may vary. Some possible answers are: a explaining ... Pearson Education - solutions and answers Browse through your textbook and get expert solutions, hints, and answers to all exercises. ... Share worksheets, collaborate, and reach out to find other ... Answers 2 Students' own ideas about how we can tell that a life process is occurring in a certain item/organism. 3 The life process that can never be said to occur in. Answers 8Aa Nutrients. Student Book. 1: 8Aa Food and advertising. 1 Students' own answers: e.g. for energy, growth and repair, and health. Answer Key Worksheet 1 Worksheet 2 Worksheet 3 ... Jan 3, 2015 — Answer Key Worksheet 1 Worksheet 2 Worksheet 3 Worksheet 4. Answer Key ... Copyright © Pearson Education, Inc. Permission granted to reproduce ... 8A WORKBOOK ANSWERS 1 Students' own answers, making reference to the need for food for energy and/or growth, repairing the body, health. Some students may list specific ... Pearson Education Science Lesson Plans & Worksheets Find pearson education science lesson plans and teaching resources. Quickly find that inspire student learning.