# Literature \_ links

# What is the literature chapter of scientific paper?

The literature review chapter of a scientific paper is a critical component that provides an overview and evaluation of the existing body of knowledge and research on the topic being investigated. It serves several purposes, including:

- Contextualizing the research: The literature review establishes the background and context for the study. It outlines the current state of knowledge, highlights key theories, concepts, and previous research related to the research question or problem being addressed.
- Identifying research gaps: By reviewing existing literature, researchers can identify gaps or unanswered questions in the field. These gaps serve as the motivation for the current study and justify its relevance.
- Evaluating existing research: The literature review critically examines and evaluates previous studies. Researchers assess the methodologies used, the strengths and limitations of previous findings, and any conflicting or contradictory results. This evaluation helps establish the need for further research and informs the approach taken in the current study.
- Establishing theoretical framework: The literature review often involves the identification and discussion of relevant theories or conceptual frameworks that underpin the current research. This provides a theoretical foundation for the study and helps guide the research design and analysis.
- Supporting research hypotheses or objectives: The literature review connects the existing knowledge to the specific research hypotheses or objectives of the current study. It provides evidence and rationale for the research questions and hypotheses proposed by the researchers.
- Citing relevant studies: The literature review chapter includes extensive citations of previous studies, which helps to acknowledge the work of other researchers, demonstrate the researchers' familiarity with the field, and provide readers with resources for further exploration.

In summary, the literature review chapter of a scientific paper is a comprehensive synthesis and analysis of relevant research and scholarly works that contextualizes the study, identifies research gaps, and supports the rationale for the current research.

# How to write the literature chapter of scientific paper?

Writing the literature review chapter of a scientific paper involves several key steps. Here is a general guide on how to approach this section:

- Identify the scope and purpose: Determine the specific focus and purpose of your literature review. Clearly define the research question or problem you are addressing and the objectives of the review.
- Conduct a comprehensive literature search: Begin by conducting a systematic search for relevant scholarly articles, books, conference papers, and other reliable sources. Utilize academic databases,

search engines, and reference lists of relevant papers to gather a wide range of sources. Keep track of the sources you find, including the author(s), title, publication year, and key findings or main points.

- Evaluate and select sources: Evaluate the quality and relevance of each source. Consider factors such as the credibility of the author and the publication, the methodology used in the study, and the relevance of the findings to your research question. Select the most significant and reputable sources that contribute to the understanding of your topic.
- Organize the literature: Group the selected sources into thematic categories or subtopics based on their similarities or relationships. This organization helps you present a logical flow of information and highlight the main themes or concepts emerging from the literature.
- Summarize and synthesize the literature: Begin writing concise summaries of the main findings, arguments, or key points from each source. Focus on the aspects that are most relevant to your research question. Look for commonalities, patterns, and trends across the literature and synthesize the information to form a coherent narrative.
- Critically analyze the literature: Evaluate the strengths, weaknesses, and limitations of the studies
  you reviewed. Identify any gaps, inconsistencies, or unresolved issues in the existing literature.
   Critically assess the methodology, sample size, data analysis, and other relevant aspects of the
  studies to determine their reliability and validity.
- Structure the literature review chapter: Organize your literature review in a clear and logical manner.
   Start with an introduction that sets the context and provides an overview of the topic. Then, present the main themes or subtopics you identified, providing a summary and synthesis of the literature within each theme. Use topic sentences and clear transitions to guide the reader through the review.
- Include citations and references: Properly cite all the sources you have used within the literature review chapter. Follow the appropriate citation style guidelines (e.g., APA, MLA, Chicago) specified by your target journal or academic institution. Make sure to create a comprehensive reference list at the end of the chapter, listing all the sources cited.
- Revise and refine: Once you have completed a draft of the literature review chapter, review and
  revise it for clarity, coherence, and logical flow. Ensure that your arguments and conclusions are
  supported by the evidence presented in the literature. Seek feedback from peers, mentors, or
  supervisors to improve the quality of your review.

Remember that the literature review is not merely a summary of existing research but a critical analysis that highlights the significance of your research and the gaps you aim to fill. It should demonstrate your understanding of the field and establish the rationale for your study.

# **Topics**

- Architectural Barriers for disabilities
- Virtual Reality Simulations

# Links \_ Architectural Barriers for disabilities

# 1 \_ Architectural Barriers to Persons With Disabilities in Businesses in an Urban Community

#### Abstract

It is the purpose of this study to determine the frequency of architectural barriers to persons with disabilities in businesses in a small urban community in central Virginia. The survey was conducted by a trained volunteer using a one-page checklist. Only 27% of the businesses had no architectural barriers to individuals with disabilities. The most common architectural barrier for individuals with disabilities was the interference with parking and entrance into the business (65%). Faced with these architectural barriers, all individuals are encouraged to identify the architectural barriers in businesses and to file letters of complaints to the Department of Justice requesting their removal.

# Keywords

Disabled, persons disability, community, frequency of architectural barriers, common barriers, parking, entrance, America.

# • Citation

Helen C. Ahn and others, Architectural Barriers to Persons With Disabilities in Businesses in an Urban Community, The Journal of Burn Care & Rehabilitation, Volume 15, Issue 2, March-April 1994, Pages 176–179, https://doi.org/10.1097/00004630-199403000-00014

# 2 \_ Architectural Barriers: a Perspective on Progress

#### Abstract

Over the past twenty-five years, laws have been enacted mandating that buildings be designed and constructed to be accessible to persons with handicaps. The implementation of these laws with barrier-free design standards, which also developed in this period, has led to significant process in the involvement of disabled persons in the fabric of American society. Accessible design is currently in an age of implementation. It is apparently on a projected course where "handicapped design" will' ultimately be so fully integrated into the creative process that it will be part of "universal design" in which architects and designers maximize the number of users and their experiences in a facility.

# Keywords

Architectural barriers, laws, barrier-free design standards, accessible design, America.

## • Citation

Charles D. Goldman, ARCHITECTURAL BARRIERS: A PRESPECTIVE ON PROGRESS, 5 W. New Eng. L. Rev. 465 (1983), http://digitalcommons.law.wne.edu/lawreview/vol5/iss3/8

The perspective of children and youth: How different stakeholders identify architectural barriers for inclusion in schools

#### **Abstract**

Recent inclusive policies are promoting the involvement of individuals with disabilities in identifying barriers that limit their full participation and inclusion in public spaces. The present two studies explored the contributions provided by different stakeholder groups in the identification of architectural barriers in elementary and secondary schools. In each school, the principal, special education resource teacher and a student independently identified architectural barriers using an observational walkthrough method. The first study consisted of 29 schools where the student evaluator had a physical disability and the second study consisted of 22 schools where the student evaluator did not have a disability. The results of both studies showed that students identified the greatest number of barriers and principals the least. The type and location of identified barriers are explored and the conclusions are examined in relation to personenvironment congruence. The results highlight the efficacy of youth involvement and provide support for collaborative assessments that equitably involve all stakeholders in inclusive environmental assessments.

# **Keywords**

Inclusive environmental assessmentChild and youth participationChildren with disabilitiesArchitectural barriersAccessibilitySchools

#### Citation

Pivik, Jayne. (2010). The perspective of children and youth: How different stakeholders identify architectural barriers for inclusion in schools. Journal of Environmental Psychology. 510-517. https://www.researchgate.net/publication/222824936\_The\_perspective\_of\_children\_and\_youth\_How\_different\_stakeholders\_identify\_architectural\_barriers\_for\_inclusion\_in\_schools

Public space without architectural barriers as friendly and accessible for people with disabilities

#### **Abstract**

Accessible public space for people with disabilities is the space where there are no barriers that prevent them from normal functioning in a given place. In this paper, there was collected a number of examples of most common barriers and design guidelines needed to plan or transform space into the accessible one. There was also described type of barriers and factors that affect on the accessibility of the public space.

# **Keywords**

universal design; designing for disabled; accessibility; public space; architectural barriers

# Citation

Rawski, K. (2017). Public space without architectural barriers as friendly and accessible for people with disabilities. Teka Komisji Architektury, Urbanistyki I Studiów Krajobrazowych, 13(2), 45-52. https://doi.org/10.35784/teka.1700

Beyond Architectural Barriers: Building a Bridge Between Disability and Universal Design

### **Abstract**

The paper is focused on the evolution of the concept of accessibility, by considering data of the World Health Organization (WHO) and of the Istat (Italian statistical institute). From these data it emerges that the population (worldwide and in Italy) dealing with disability represents an important share of the total. These disabilities are linked not only with disease, but also with other situation due to age, size, language, culture, job, etc. For this reason, this paper analyses how the way of seeing and dealing disability is changed over time, starting from the Italian Standard evolution. Then the action of the WHO is analyzed. The two WHO focus points are: i) disability is a health condition in an unfavorable environment; ii) disability is not a problem of a minority group within a community, but an experience that everyone, in their lifetime, can experience. All of these analyses underlined the importance of the environment influence on life of every person. Finally, the concept of Universal design UD is investigated, highlighting the importance of recognizing and understanding that human beings will have different steps in their abilities throughout their life. The originality of this research is the shifting of the attention also to people normally served by poor services, such as people of small stature, the elderly, pregnant women, parents with children in strollers, people who speak different languages and more.

### **Keywords**

Accessibility, disability, universal design, World Health Organization, architectural barriers, Italy

#### Citation

Pinna, F., Garau, C., Maltinti, F., Coni, M. (2020). Beyond Architectural Barriers: Building a Bridge Between Disability and Universal Design. In: , et al. Computational Science and Its Applications – ICCSA 2020. ICCSA 2020. Lecture Notes in Computer Science(), vol 12255. Springer, Cham. https://doi.org/10.1007/978-3-030-58820-5\_51

Raising Awareness about Accessibility

#### **Abstract**

Every citizen has to right to move throughout a city safely and independently. The term accessibility refers this right in built environment mostly for public uses. In the beginning of 20th century, accessibility started from a restricted application but nowadays it became more comprehensive due to a better understanding of physical barriers in the world. According to a recent research, designers are not aware of how architectural barriers restrict accessibility for different users. It should not be forgotten that accessibility for everyone will increase the whole citizens' quality of life. Thus, the paper tries to show importance of raising awareness in design studios for better implementing accessibility for all people. In our urban design studio, a strong relationship has been found between accessible design solutions and students' awareness about physical barriers. The paper concludes that there is an immediate need to elaborate design courses with universal design principles.

### **Keywords**

Accessibility, design curriculum, universal design

## Citation

Ayse Nilay Evcil, Raising Awareness about Accessibility, Procedia - Social and Behavioral Sciences, Volume 47, 2012, Pages 490-494, ISSN 1877-0428. https://doi.org/10.1016/j.sbspro.2012.06.686. (https://www.sciencedirect.com/science/article/pii/S1877042812024226)

Wheelchair accessibility to public buildings in Istanbul

#### **Abstract**

Background. Accessibility to public environment is the human right and basic need of each citizen and is one of the fundamental considerations for urban planning.

Purpose. The aim of this study is to determine the compliance of public buildings in central business districts (CBD) of Istanbul, Turkey, to wheelchair accessibility to the guidelines of the instrument and identify architectural barriers faced by wheelchair users.

Methods. This is a descriptive study of 26 public buildings in CBD of Istanbul. The instrument used is the adapted Useh, Moyo and Munyonga questionnaire to collect the data from direct observation and measurement. Descriptive statistics of simple percentages and means are used to explain the compliance to the guidelines of the instrument and wheelchair accessibility.

Results. The descriptive survey results indicate that wheelchair users experience many accessibility problems in public environment of the most urbanised city (cultural capital of Europe in 2010) in a developing country.

Conclusion. It is found that the major architectural barrier is the public transportation items with the lowest mean compliance (25%). Beside this, the most compliant to the instrument is entrance to building items with 79% as mean percentage. It is also found that there is an intention to improve accessibility when building construction period is investigated. This article describes the example of the compliance of public buildings accessibility when the country has legislation, but lacking regulations about accessibility for the wheelchair users.

# **Keywords**

Wheelchair accessibility, public buildings, urban planning, design

#### Citation

A. Nilay Evcil (2009) Wheelchair accessibility to public buildings in Istanbul, Disability and Rehabilitation: Assistive Technology, 4:2, 76-85, https://doi.org/10.1080/17483100802543247

- 8 \_ Wheelchair accessibility of public buildings: a review of the literature
  - Abstract

Purpose. The purpose of this review was to examine the wheelchair accessibility in public buildings and discuss the role of professional in this practice area.

Method. Of the 85 originally identified publications from a search of major electronic bibliographic databases, 12 studies relating to wheelchair accessibility in public buildings were selected. The compliance rates with wheelchair accessibility in different areas were summarised.

Results. No study reported 100% wheelchair accessibility despite the enforcement of existing laws and regulations. Parking had the lowest compliance rate among all facilities in terms of accessibility, while entrances had the highest.

Conclusions. A global review is needed of both new and old buildings regarding wheelchair accessibility. Professional in this practice area has an important role to play in advocating wheelchair accessibility and assisting wheelchair users to participate fully in all areas of the community.

Keywords

Wheelchair use, barrier-free environment, community, public buildings, literature review, parking, plan or transform.

Citations

Nandana Welage & Karen P. Y. Liu (2011) Wheelchair accessibility of public buildings: a review of the literature, Disability and Rehabilitation: Assistive Technology, 6:1, 1-9, https://doi.org/10.3109/17483107.2010.522680

Disability Law in Germany: An Overview of Employment, Education and Access Rights

#### **Abstract**

Under German law, people with disabilities are entitled to help and assistance in order to avert, eliminate or improve their disability. The general goal is to overcome, as much as possible, the disability's effects and to enable the disabled to participate in all areas of society, especially in the labor market and in community life. The Federal Government is obliged to a barrier-free design and construction of public buildings, streets, etc. and to provide barrier-free access to communication, especially in the field of administrative Internet sites, official forms and notifications. In the area of public transportation, all facilities and means of transportation (bus, train, aircraft) are also required to be barrier-free. The same applies to restaurants.

# **Keywords**

#### Citation

Kock, M. (2004). Disability Law in Germany: An Overview of Employment, Education and Access Rights. German Law Journal, 5(11), 1373-1392. https://doi.org/10.1017/S2071832200013286

What about the people? Developing measures of perceived accessibility from case studies in Germany and the UK

### **Abstract**

As a primary objective in transport planning urban neighbourhood accessibility plays an essential role in the sustainable transformation of cities and their infrastructure. In most studies, accessibility is objectively measured using aggregate travel time or generalised costs as an indicator of the separation of people from places. However, this approach does not reflect perceptions of residents, which ultimately shape mobility decisions and represent the "lived reality" of accessibility. This paper addresses this research gap,

adding to a growing evidence base on understanding the relationship between perceived and objective measures of accessibility, and discusses opportunities for incorporating perceptions into measures of accessibility. We offer suggestions for how and why individual perceptions of accessibility differ from objective measures using data from Germany and the UK.

### **Keywords**

Perceived accessibility, urban mobility, comparative research, sustainable access.

#### Citation

Anna-Lena van der Vlugt, Angela Curl & Dirk Wittowsky (2019) What about the people? Developing measures of perceived accessibility from case studies in Germany and the UK, Applied Mobilities, 4:2, 142-162, https://doi.org/10.1080/23800127.2019.1573450

# **Topics**

# **Terminology**

The common access pathways are defined as routes. [8]

# Common barriers / types of barriers

three major areas of activities that were affected, namely parking and entrances, goods and services and restrooms. A later study also singled out parking and entrances. [8]

wheelchair accessibility in different areas of public buildings, and most assessed parking, routes, ramps, entrances, restrooms, phones, water fountains and elevators, which are the facilities most commonly used by visitors, including both wheelchair users and the general population. [8]

parking facilities, which were found to have the least degree of compliance with wheelchair accessibility requirements. [8]

The compliance rates with regard to wheelchair routes (including the width of route turns and curbs) ranged. [8]

accessibility to water fountains. [8]

food courts and dressing rooms in shopping centres. [8]

restaurant accessibility by examining table height and knee clearance. [8]

accessibility of grocery and convenience stores by assessing the height of racks and the width of aisles. [8]

Five major areas have been identified as important areas of accessibility, namely parking, routes, ramps, entrances and restrooms. [8]

Parking lots have no assigned parking spaces for individuals with disabilities. Van-accessible parking places are a rariety. [1]

Sidewalks without a curbcut, making it impossible to crosss the street. [1]

### Common barriers / types of barriers

Access to buildings. [1]

Stairs without an accessible ramp. [1]

The aisles in the stores are so narrow that they prevent access to an inividual in a wheelchair. [1]

The products sold in stores are positioned on shelves that cannot be reached by individuals with disabilities. [1]

check-out aisles in the stores are usually not accessible. [1]

Public restrooms for individuals in wheelchairs are often not accessible. Without an elevated toilet and grab bars, persons with disabilities cannot transfer to the toilet without assistance. [1]

The most common architectural barrier for individuals with disabilities was the interference with parking and entrance into the business (65%). [1]

The most common architectural barrier for individual with disabilities was interference with parking and entrance (65%), followed by those in goods and services (40%), and then by those in restrooms (42%). (listed in order of priority according to priority) [1]

Title III of the ADA has established the following three suggested priorities for barrier removal. First, remove barriers from parking areas, sidewalks, and entrances to the public accommodations so that a person with a disability can get through the door. Second, remove barriers where goods and services are provided. Third, remove barriers to restroom facilities when they are open to the public. [1]

# Laws / Guidelines

Wheelchair accessibility to public buildings is often regulated by the legal system. An example of this would be the Americans with Disabilities Act (ADA) of 1990, which was an outcome of the independent living movement and the disability rights movement. In 1993, the United Nations General Assembly adopted standard rules to equalise opportunities for persons with disabilities. Rule 5 specifically targets accessibility, declaring that 'states should introduce programmes of action to make the physical environment accessible'. In addition, individual governments have taken steps to ensure accessibility for disabled persons, and a gradual reduction in architectural barriers has occurred as a result. However, difficulties still remain for wheelchair users in using public building facilities throughout the world. [8]

Ramps are an important element of building accessibility and their absence obviously makes it much harder for wheelchair users to enter buildings and perform required activities. A ramp slope should have a 1:12 gradient for independent wheelchair propelling, and a level landing area at both the top and bottom is essential. [8]

accessibility to building entrances [...] it was mentioned that doors were often too heavy, or in the case of double doors, the width of one leaf was less than the ideal width of 32 inches. [8]

accessibility to restrooms [...] The major problems were narrow doorways, narrow spaces for wheelchair maneuvering, lack of grab bars or reachable hand driers, and lack of designated restrooms. [8]

### Laws / Guidelines

accessibility to elevators for wheelchair users [...] freight elevators, so their locations were not convenient for wheelchair users or passengers in general. These elevators usually had several unsatisfactory features; for example, they frequently had heavy manual doors, and the height of the controls, the entrances, and the levelling of the elevator to the outside area were often not suitable for wheelchair users. With advances in technology, features suitable for wheelchair users can be built in, such as automatic doors and spacious room inside the elevators. [8]

ADA criteria of public telephone. However, wheelchair accessibility to public telephone facilities is less essential today given the widespread use of cellular telephones. [8]

Americans with Disabilities Act (ADA) is the World's first comprehensive civil rights legislation for people with disabilities, and it was a historic benchmark and milestone in America's commitment to full and equal opportunity of all of its citizens. Title III (of the ADA) forbids discrimination by public accommodations and services, affecting all the business in our country. [...] As a public accommodation, the business ,ust not biscriminate against a person with a disability in the goods, services, facilities, and accommodations provided by the business. [1]

The ADA requires the business to remove architectural barriers to access when it is "readily achievable" to do so. The ADA defines readily achievable as easily accomplishable and able to be carried out without much difficulty or expense. The standard does not require business to remove barriers when extensive restructuring or burdensome expense is involved. Requires barrel removal for a particular business will depend on its financial resources and no other resources. The readily achievable standard is intended to be a flexible one on a case-by-case basis. [1]

### **Participation in barriers identification**

### Accessibility concept / evolution / goals

achieve full social participation. [8]

users' participation in community activities [8]

Four studies found that recently constructed buildings were more compliant with wheelchair accessibility requirements than were older buildings. [8]

All these four studies showed the trend of increasing compliance rate when buildings were constructed in recent years. [8]

It was encouraging to see that action was taken by building management when they were notified of the identified deficiencies: 25% of the buildings underwent renovation based on the studies' suggestions and recommendations. Thus, professional in this practice area and/or designers such as architects or urban planners can play a key role in advocating the importance of a barrier-free environment to the lives of people with disabilities and thus help to bring about change. [8]

# Accessibility concept / evolution / goals

With the enforcement of international disability acts, public buildings are undergoing gradual renovations to become more wheelchair accessible. [...] Nevertheless, the findings of this review show that architectural barriers to wheelchair users persist in public buildings despite wheelchair accessibility being a legal requirement in many countries. [...] enforced accessibility guidelines would be necessary to ensure that wheelchair users have the opportunity for social integration and access to community resources. These areas are essential for wheelchair users to be able to enter buildings and participate in required activities [8]

Community integration involves multiple concerns, including environmental, psychological and social factors. In terms of environmental factors, restrictions on mobility may be the most common way of handicapping individuals with disabilities. To create a barrier-free environment is not only important for wheelchair users but also for other people with disabilities, as well as the elderly population, pregnant women and mothers with infants. [8]

People with disabilities have been faced with restrictions and limitations, subjected to a history of purposeful unequal treatment, and relegated to a position of political powerlessness in our society. Our nation's (USA) proper goals are to ensure quality of opportunity, full participation, independent living, and economic self-sufficiency for persons with diabilities. The law itself notes that the continuing existence of unfair and unnecessary discrimination and prejudice denies perople with disabilities the opportunity to compete on an equal basis and to pursue those opportunities for which our free society is justifiably famous. This denial costs the United States billions of dollars in unnecessary expenses, resultiong in dependency and nonproductivity. The purpose of the AMericans with Disabilities Act is to provide clear and comprehensice national mandate for the elimination of discrimination for individuals with disabilities. [1]

# **Accessibility Concept Evolution**

Accessible design is currently in an age of implementation. It is apparently on a projected course where "handicapped design" will ultimately be so fully integrated into the creative process that it will be part of "universal design" in which architects and designers maximize the number of users and their experiences in a facility. [2]

### **Accessibility awareness**

### What is Accessibility

The term 'accessibility' refers to the degree to which an environment (e.g., a site, facility, workplace, service or programme) can be approached, entered, operated in, or used safely and with dignity by people with disabilities. [8]

# **Accessibility impact**

Access to public buildings is important for people with disabilities as it could enhance their active participation in the community and allow them to contribute both socially and economically. [8]

# **Accessibility impact**

Architectural barriers are discriminatory in that they deny qualified persons their most basic of rights: access to and participation in society. Accessibility permeates all other aspects of disabled persons' civil rights. Without access, rights to equal employment opportunity, rights to be "abroad in the land," and the full panoply of protections and duties can be rendered meaningless. [2]

I.M. Pei notes the need to go beyond mere access: "Spatial relationships need to be experienced. Persons with disabilities must be

able to enjoy the psychological aspects of astructure, not only the individual points or planes within it. This is a concept that will develop over the next few years. [2]

# **Accessibility measure**

It is commonly quantified using the percentage of compliance, which is calculated as the number of facilities complying with wheelchair accessibility requirements over the total number of facilities measured. [8]

## **Universal Design**

Design to accommodate persons with disabilities was and has continued to be primarily conceptualized for the ambulatory-impaired person, particularly one in a wheelchair. An emerging theme is that of universal design. There is a recognition that design which is functional for persons with handicaps is also utilitarian for the elderly, the very young, and the temporarily disabled. Curb cuts and ramps serve baby strollers as well as wheelchairs and serve as channels for pedestrians. The Handicapped Affairs Office of San Antonio has found that fifty-six percent of the community benefits from barrier free design. [...] There is a growing awareness that disability does not denote inability, that disabled persons are users rather than abusers, and that the individual with a disability pays taxes as does any other citizen. [...] Persons with disabilities are increasingly participating in the design process, bringing unprecedented firsthand knowledge. [...] These groups attest

to the benefit of having disability experienced groups participate in the design process. [2]

Congressman Paul Simon, chairman of the House of Representatives Post Secondary Education Subcommittee, has observed the change in attitudes in the higher education community. Representative Simon notes that there is a "recognition of the reality of the need for accessibility. He believes that to adapt to this change of attitude, architects need to become creatively realistic in devising access changes. [2]

Itzhak Perlman, a most creative musician, believes that with rich imagination, aesthetics and accessibility can be blended. Accessibility is compatible with other design considerations. [2]

# **Universal Design**

Consumers and their organizations are moving to protect their hard-fought gains, fearful that the economy will be used as an excuse by those unfamiliar with or opposed to accessibility. This movement has put a premium on the issuance of a clear, uniform standard for accessibility that can be easily understood and implemented. As understanding increases, the costs of implementation decrease because errors are avoided with the use of standard design practice. [...] Architect Ron Mace has a similar perspective, recognizing the need for a clear uniform standard that can be supported and then implemented. A clear uniform standard will be assimilated into accepted architectural practice. Accessibility specifications that are part of a universal design standard will be implemented readily because the design features will be available on a

mass produced, rather than special effects, basis. [...] A true uniform standard will catalyze more consistent design practice and, in turn, greater voluntary compliance. [2]

As more persons with different disabilities enter the mainstream, technology will be challenged to meet their needs. The focus will be on a greater number of people experiencing a building and a recognition of the practicality of universal design, which benefits all citizens for the same cost. [2]

Department of Rehabilitation, is seeking to implement universal design. The designs will be functional for the able-bodied and disabled. The grade level entrance that serves the mobility impaired also serves the baby carriage brigade. The design features add nominal cost to the structure, which has a longer useful life for its occupant. Lamentably, the older people get, the less able-bodied they become. The adaptability features enable people to make accommodations as disabilities occur. The features are aesthetically pleasing and make the house more marketable as it is suitable for the total range of buyers, not only those who are able-bodied. [2]

A critic recently wrote: "Each and every building is a product of numerous forces--economic, social, cultural, political, functional, and aesthetic-and must be evaluated in terms of how well it has responded to all of these forces. There is little doubt that handicapped persons and barrier free design are forces which are now and should continue to be significant factors in the totality of building design. As the building design process evolves towards greater accessibility, legal issues will inevitably arise. [2]

# **Participation in Design**

Studies by the National League of Cities and the United States General Accounting Office have led to an acceptance of the proposition that accessibility features cost less than one percent, often less than one-half of one percent of the cost of new construction. Alteration projects can be more expensive, depending on the exact nature of the work involved. [...] The phasing-in of accessibility has been found to ease the cost burden. [2]

# Questions

PROFESSEUR: M.DA ROS

Number of wheelchair users/blind/deaf/... in Europe/germany/Baden-Wuttenberg [cfr. 1.6 million wheelchair users live in the community in the USA. This means that approximately 1 in every 200 community dwellers require the use of a wheelchair. Although no exact figures exist for developing countries, the

number of wheelchair users may be similar to or even exceed that of the USA.]

# **Reading Progress**

Number	Title	Obtained	Read
1	Architectural Barriers to Persons with Disabilities in Businesses in an Urban Community	Yes	Yes
2		Yes	No
3		Yes	No
4		Yes	No
5		Yes	No
6		Yes	No
7		Yes	No
8	Wheelchair accessibility of public buildings: a review of the literature	Yes	Yes

# Links \_ Virtual Reality Simulations

**Abstract** 

Keywords

Citation