

Inclusive Housing in Australia – A Voluntary Response

M. Ward, J. Franz, B. Adkins

Abstract—The lack of inclusive housing in Australia contributes to the marginalization and exclusion of people with disability and older people from family and community life. The Australian government has handed over the responsibility of increasing the supply of inclusive housing to the housing industry through an agreed national access standard and a voluntary strategy. Voluntary strategies have not been successful in other constituencies and little is known about what would work in Australia today. Findings from a research project into the voluntariness of the housing industry indicate that a reliable and consistent supply is unlikely without an equivalent increase in demand. The strategy has, however, an important role to play in the task of changing housing industry practices towards building more inclusive communities.

Keywords—Australia, housing, inclusion, voluntary, industry

As in many developed countries, the Australian population is aging and becoming less productive, yet has high expectations regarding health and welfare services and quality of life [1]. The shape of its cities, in particular, the supply of inclusive housing, will play a crucial role in meeting this challenge. In the absence of a national mandatory access code for housing, the needs of older people and people with disability who wish to live in regular communities have been found to be neglected [2].

In response to the Australian Government's commitment to becoming a more inclusive society [3]-[4], key housing industry, disability and community leaders agreed in 2010 to a national access code and voluntary strategy to provide all new housing with minimum access features by 2020. If voluntary strategies have not worked in the past, what is required for a voluntary strategy to work in Australia now?

This paper first describes the context for the voluntary provision of inclusive housing in Australia, and the current responses by the housing industry. The paper then explores why residential environments are inaccessible and what is typically done about it. It then describes a qualitative research project into the voluntariness of the housing industry in providing inclusive housing and concludes by reflecting on what is likely to be required for the housing industry to meet its 2020 goal.

II. TERMINOLOGY

At risk of appearing to discount important design theory debates, the paper uses the term “inclusive” to describe housing that is accessible to people with disability and older people in normative locations; that is, in a manner that includes them in the everyday life in regular housing and communities.

M. Ward is a PhD Candidate at the School of Design, Creative Industries Faculty, Queensland University of Technology, Brisbane, Australia (ph +61 7 3138 9183, facsimile +61 7 3138 1528, email: m11.ward@qut.edu.au).

J. Franz is Professor of Interior Design and Head of Discipline, Creative Industries Faculty, Queensland University of Technology, Brisbane, Australia (e-mail: j.franz@qut.edu.au).

B. Adkins is Associate Professor, Interior Design, Creative Industries Faculty, Queensland University of Technology, Brisbane, Australia (e-mail: b.adkins@qut.edu.au).

Similar debates surround the terminology describing people who have a disability [72]. These debates also are important; however, within the limitations of this paper the term “people with disability” is used to describe people with impairments that cause limitations in using the built environment in a manner that honors the preference of the self-advocacy movement to emphasize the person first before their disability [5]. The term includes the large cohort of older people who have a mobility restriction [6].

Australia has three levels of government; federal, state and local, all of which have a role in providing inclusive housing. Their forum for making decisions of national importance is the Council of Australian Governments (COAG).

III. CONTEXT

The increasing number of older people, with younger people with disability, is presenting an unprecedented challenge to Australian governments. How older people and people with disability are treated is considered to be inadequate, and is under review [7]-[9]. At the same time, the Australian governments through COAG have committed to a social justice policy direction for an inclusive Australian society that enables older people and people with disability to fulfill their potential as equal and fully participating citizens [3]-[4].

A. Demographics

The increasing ageing population is considered to be a key factor in the decrease in economic growth through decreased productivity and increased demand on health and social services [1]. In 2009, 18.5% of the Australian population reported to have a disability, with over half of the people aged 60 years, and 87% of this group identifying a specific limitation or restriction, that is, an impairment restricting their ability to perform communication, mobility or self-care activities, or a restriction associated with schooling or employment [6].

The challenge for Australia, like most developed countries, will be how they provide for older people and people with disability, maintain their inclusion and participation, and increase the country's productivity in the future. This challenge will be reliant in part on the design of Australia's cities and in optimizing the efficacy and adequacy of its infrastructure and housing stock [11].

Current housing and support policies in Australia have been found to marginalize people with disability from their communities and exacerbate their dependency on family carers, support agencies and government handouts [9]. Saugeres [2] argues that while there will always be people who require the assistance of others, it is not the dependency in itself that is oppressive but the ways in which it is socially constructed. The lack of inclusive housing prevents many older people and people with disability from optimizing their participation and contribution to family and community life.

Many are forced to rely on their families to support them and to have modifications done to their housing. The alternative of government-subsidized housing which is required to be adapted to need [12], is elusive as it constitutes around 5% of the national housing stock, is limited in its location to employment, transport and support services and, even with priority allocation, it may take years before suitable housing is available [13].

A recent study in Australia [14] found older people have an incidence of home ownership of around 80% and the vast majority wish to remain in their own homes for as long as possible. A third of older home-owners have already made some modifications, and over half anticipate more work to be done. This is commonly accompanied by an anxiety about the cost [14]. Older people and people with disability who rely on private rental housing are significantly disadvantaged by the poor design of investment properties and the reticence of landlords to modify them [15]-[16]. The housing industry has tended to provide housing with access features primarily in age-specific or disability-specific developments; however, the assumption that this is the preferred option is being challenged, given that most older people want to remain in their own home or within their established communities [17]-[18] and younger people with disability typically reject segregated settings in favour of a more inclusive lifestyle [9].

B. Social Justice Framework

The Australian Government has committed to a legal and policy framework of social justice and has enacted the *Disability Discrimination Act 1992* (DDA) [12] to counter discrimination. This resulted in the development of a national standard for access to public premises [20] which is now included in the Building Code of Australia, the national minimum standard for construction [21]. There is no capacity within this policy framework or legislation, however, for a legally enforceable access standard for the internal areas of housing. The Convention on the Rights of Persons with Disabilities (CRPD) [10], to which Australia is a signatory, brings a new challenge. With regard to housing design, the CRPD obliges participating governments to promote universal design in the development of standards and guidelines (Article 4), to recognize the right of people with disability to live independently with whom they choose and to be included in the community (Article 19), and not to experience housing disadvantage when compared to other segments of the population (Article 2).

How these Articles are interpreted to provide access features in housing differs considerably. Disability groups [22]-[23] have advocated for prescriptive regulation which ensures the provision of a dignified level of access, adequate space for internal mobility and maximum personal independence in all new and extensively modified housing. Their call for regulation is a response to the limitations of the DDA's individual complaints mechanism and its failure to reform building practices. The protracted negotiations for the development of the Access to Premises standard for the Building Code of Australia [24] signalled reluctance within the building industry to adapt its established practices to meet social justice goals.

The Australian Government opted for a less confrontational approach with regard to its recent social justice commitments regarding the design of housing [25]. In 2010, it encouraged the housing industry and community leaders to agree to a collaborative and voluntary alternative, called Livable Housing Design with measurable targets towards the provision of minimum access features in all new housing by 2020 [26].

In summary, the lack of inclusive housing in Australia has contributed to the marginalization and exclusion of many older people and people with disability. Australia has committed to a social justice framework supporting the inclusion and participation of people with disability. There are also practical, economic reasons to do so. While advocates are calling for a regulatory approach, the Government, community leaders and the housing industry consider a voluntary strategy is preferable at this time.

C. Current Response to the Need for Inclusive Housing

The agreed voluntary strategy of the housing industry and community leaders, called Livable Housing Design [26]-[27], has a goal for all new housing to provide a minimum level of access by 2020. Several voluntary access guidelines and strategies have previously been offered to the Australian housing market [28]-[30] with little effect on either the supply or the demand [31].

In spite of the limited outcomes of previous voluntary strategies, the Australian Government [4] and a number of State Governments [32]-[33] are relying in part on Livable Housing Design to increase the supply of inclusive housing. The Australian Government's Productivity Commission, which provides independent advice on economic, social and environmental issues affecting the welfare of Australians, has also cited Livable Housing Design as the main strategy for the provision of inclusive housing for the future care of older Australians [7], and people with disability [8].

D. Public versus Private Space

As mentioned above, public premises in Australia are now required to be non-discriminatory by law. The internal areas of housing are not [12]. This raises the question whether housing environments have a "public interest" element. From a legal perspective, Malloy [34] suggests that the ephemeral concept of "home" as a private space, where intimacy, rest and renewal occurs and families are made, should be differentiated from the physical structure of a "house" which should be considered a quasi-public environment used by many occupants, visitors and workers throughout its lifetime and in which there is legitimate public interest. Malloy notes that in the USA there are significant publicly-funded subsidies which support the provision of privately-owned housing. Smith, Rayer and Smith [35] contribute to this idea by considering the implications of the design on the many users of a dwelling over time. If the access needs of both occupants and visitors are taken into account, they anticipate a need for minimum access features at some point for over 90% of free-standing dwellings built today. Both studies are relevant to the Australian context given the similarities to the housing finance structures [36] and demographics of aging and disability [37].

The design of private areas of dwellings impinges on other areas of public interest. These include the public funds that meet the costs of home-based injuries [38], support provided by families and informal carers [39] community health and welfare staff [40] and assistance for home modifications [16].

E. Barriers to a Voluntary Approach

The limited success of voluntary strategies both in Australia and in other countries [41]-[43] has shown the housing industry has not been able to provide a consistent standard or a reliable supply, leading to the necessity for significant incentives or regulation. Four common reasons given for the failure of the voluntary approach given by housing providers are lack of demand, legitimacy of need, implementation issues, and added cost.

Research on the housing choices of Australians [14]-[15] suggest that those people who need inclusive housing are unlikely to become buyers of new housing and those buyers who are in the market for new housing have little interest in paying for extras that they do not consider they need [44]. Even buyers who are likely to need access features in the future, such as imminent retirees or “baby-boomers”, are not showing signs of planning for their frailty or the frailty of their partners [45] in their housing choices. With the lack of demand for inclusive housing from buyers of new housing, the industry understandably can believe that the housing needs of people with disability are being met elsewhere [17] and the call for regulation by disability advocates is unreasonable [46].

How the housing industry responds to buyers wanting inclusive housing suggests that there are also barriers for buyers to obtain access features even if they specifically ask for them [47]. Individual variations requiring changes to product sizes or building practice are problematic, particularly for volume-building companies which are becoming increasingly competitive, mechanized, and complex in the delivery process [58]. The estimated cost of providing minimum access features varies significantly; from the housing industry [48] quoting a figure five times that of government assessors [49]. This disparity in cost-estimates perhaps reflects the difficulties anticipated by the housing industry in changing these complex, mechanistic delivery practices. A cost-estimate which takes the change process into account is currently not available; however, where regulation has been introduced, the provision of access features has been absorbed into established practices “with minimal disruption” [42].

The Australian Government is currently relying on a voluntary response by the housing industry to increase the supply of inclusive housing. The research project outlined further in this paper attempts to discover what is required for a voluntary strategy to work. Given that past voluntary initiatives here and overseas have had limited success, it may be useful first to explore why housing is typically inaccessible for older people and people with disability, and what voluntariness means for the various players in the housing industry.

IV. WHY HOUSING IS NOT INCLUSIVE

This section of the paper explores why housing is not designed to be inclusive and what commonly is done in response. From a broader urban geographic perspective, Gleeson [50] offers a useful framework to consider why contemporary urban environments are inaccessible and exclude people with disability. Gleeson suggests there are three reasons: the idea of “natural limits” of disability, the notion of “thoughtless design”, and socio-spatial influences that arise particularly from the formation of capitalist societies.

A. Natural Limits

The idea of “natural limits” comes from the understanding that the challenges people with disability face are physiological in origin and have natural limitations. This idea accepts that the person with disability experiences space differently; that urban design can exaggerate this difference, not cause it [19]. The challenge is primarily physiological and can be ameliorated by technological solutions, such as aids and equipment, home modifications and individual housing design. Minimizing these natural limits is the goal of “universal” design which aims “to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design” [51].

B. Thoughtless Design

The second idea of “thoughtless design” shifts the focus from the natural limits of the disabled body to one of social construction [52]. Poor design from unconscious or thoughtless decisions of developers, designers and builders accumulate inadvertently to cause inaccessibility and exclusion. Leder [53] in his work on human sensation and the perception of reality offers a generous explanation for this lack of consideration. He argues that people are typically unaware of how their bodies work in an environment, until it no longer works for them personally, causing limited movement, dysfunction or pain. It follows that able-bodied people have ongoing difficulty generalizing the particular access issues of a relatively small disabled group to be a concern for everyone. Hahn [52] suggests that this systemic unconsciousness can be overcome by laws and policies specifically addressing “thoughtless design”. Australia’s Access to Premises standard [20] now included in the Building Code of Australia is one such example. For building designers, who find professional and ethical meaning in understanding how people use space and how space affects people [54], the idea of thoughtless design is likely to be unacceptable. A further explanation for neglecting the access needs of older people and people with disability is needed.

C. Socio-Spatial Influences

Gleeson [50] offers a third reason. He suggests architectural space is produced as a consequence of complex influences resulting from our history, economic and social structures, and beliefs and a particular consequence of capitalist societies is the devaluation and marginalization of vulnerable, impaired or unproductive people.

To ignore this and to rely simply on technological solutions either to improve the capacities of the person by better designed equipment or dwellings, or to regulate the built environment through policies and laws does not assure the inclusion of older people and people with disability. Wolfensberger's [55] extensive work on the devaluation of people with developmental disability is based on a similar understanding of these socio-spatial influences. He offers a comprehensive schema that acknowledges their persistent and unconscious presence, and how intentional strategies, centered on the power of valued roles, can assist to "address the plight of people devalued by others, and especially by major sectors of their society" [55].

This paper cannot do justice to Wolfensberger's schema; however a brief description of his understanding of the consequences of devaluation is useful here [56]. Wolfensberger suggests that when people are devalued they tend to be rejected, leading to many losses, including their dignity, competence, personal safety and health. How devalued people are perceived, say, of little use, a burden to society or a menace or deviant, will then manifest in how they are treated. Finally, how a devalued person is perceived and treated by others will then influence how that person thinks about themselves and behaves. This typically leads to a loss of self-esteem, self-respect and self-care. The opposite is also true. The more valued roles a person has, say, employee, family member, helpful neighbour, participating community member, the better they are perceived and treated by others, and this reflects on how they think of themselves and behave to others. In intentionally gaining and maintaining these valued roles people with disability and older people can continue to develop capacities and avoid rejection.

Using housing design to exemplify this idea, the lack of easy physical access to the family home may necessitate a person leaving and, as a consequence, losing the valued roles of family member, neighbour, friend or home-maker. Displacement to "special housing" and the consequential loss of opportunities for normal contact with family and community can lead to isolation, loss of capacities and self-worth [39]. In contrast, the housing market in Australia exploits the positive roles of home-maker, entertainer and consumer to sell housing [57]-[58]. With the exception of some social housing providers who intentionally design for the inclusion of vulnerable people, awareness within the housing industry of these socio-spatial reasons for the exclusion of access features and the consequences for people with disability and older people appears to be low.

Gleeson [50] suggests that a deep systemic commitment to social inclusion needs to occur before the reasons for exclusion through urban design are addressed, and inclusive design is valued, conceived and produced as a matter of course. Livable Housing Design has a significant challenge ahead of it in achieving this level of commitment, addressing the reasons for inaccessible design and meeting its 2020 goal.

D. Response by Livable Housing Design

The Livable Housing Design guideline [27] attempts to address the notion of natural limits by addressing physiological challenges with a code which will meet the

needs of most people, and allowing for individual modification by giving priority to some features that would be difficult to retrofit (step-free entry, width of corridors and doorways). In relying on the voluntary response of an industry to respond where and whenever it considers is suitable for the market, it discounts the notion of thoughtless design or any requirement to safeguard against it.

Livable Housing Design acknowledges to some degree the more complex socio-spatial influences and how design practices can enhance or diminish the roles people with disability can have in society. Wolfensberger's [56] schema suggests that when devalued people are aligned with people with valued roles and positive imagery they are likely to be viewed more positively. Livable Housing Design acknowledges this by using positive terms, such as, "livable", "easy living", and "quality of life" [26], and assuming the needs of older people and people with disability to be similar to, and as important as, those of other people with valued social roles, such as, parents with prams, shoppers with trolleys, and the young injured sports person. Juxtaposing the access needs of older people and people with disability with the much lesser access needs of a larger number of valued citizens allows people with disability to be seen as an integral part of normal life. This does raise a concern that this lack of focus on the particular needs of older people and people with disability in order to make the program palatable to the general public will result in their access needs not being met. For example, the minimum dimensions for the toilet and the corridor-doorway relationship specified for the minimum level of access would be considered inadequate by many people using mobility aids and wheelchairs [27].

By examining why housing is inaccessible and what is commonly done in response, the paper suggests that the voluntary strategy of Livable Housing Design is unlikely to work, let alone the 2020 goal to be met. A brief exploration into the concept of voluntariness and responsibility is useful at this point to place in context the task the housing industry has set itself.

V. RESPONSIBILITY AND VOLUNTARINESS

The responsibility for the task of providing a reliable supply of inclusive housing has been handed over to and taken up by leaders in the housing industry. A further discussion about who *should* be responsible would be informative, however, is beyond the limits of this paper. Certainly Young [59] and, more specifically, Gleeson [50] raise important philosophical questions about the level of responsibility that individuals and systems need to take to win social justice for marginalised and devalued people. With regard to the built environment, Gleeson suggests that this will require a "lasting transformation of the political-economic, institutional and cultural forces that shape our cities and societies" [50] and Young suggests many groups of agents, in this case, governments, the housing industry and disability advocates, may need to take responsibility.

This paper focuses here on the responsibility taken by the housing industry and its voluntariness in providing access features in housing. Williams [60] delimits the notions of voluntariness and responsibility to “fully voluntary actions [that] are all and only the actions for which an agent is (fully) responsible” [60]. Olsaretti [61], on the other hand, defines voluntariness by examining its converse. She describes an act as voluntary “if it is not made because no other acceptable alternative was available” [61] and the value people place on their level of voluntariness is contingent on their level of informedness and motivation [62]-[63].

Williams’ [60] definition also suggests there are levels of responsibility which are conditional on people’s roles and duties and offers a framework of three theoretical levels. The first level is when a person takes no responsibility for the outcome of his or her actions. The second level is when the person takes responsibility for his or her actions, in the sense of being able to accommodate his or her actions to public requirements. The third level is when the person freely deliberates and takes voluntary action in its full meaning, thereby ideally taking full responsibility for the actions.

Scanlon [64] suggests a person can also have different reasons for valuing the choices they make and that this can be both conditional and relative. He offers three values of choices people make in these circumstances. The first is *instrumental* where the future enjoyment of the person or of others connected to them is paramount. The second is *representative* where the outcome is likely to represent something about the person. The third is *symbolic* where not having the opportunity for choice would infer the person was not competent – a choice is important here because not having a choice is unacceptable. The research outlined in this paper uses these theoretical frameworks for levels of responsibility and the values of choice in the analysis of accounts by developers, designers and builders.

The Australian government is relying on the voluntariness of the housing industry to provide housing that assists the inclusion of people with disability, and the housing industry leaders have agreed to take that responsibility by committing to a national voluntary code to provide all new housing with minimum access features by 2020. Not known is what is required by the housing industry to do this. The paper describes below a qualitative research project into the voluntariness of the housing industry in providing access features, and concludes by reflecting on what may be required if Australians want housing that includes everyone.

VI. RESEARCH

The qualitative study outlined below forms the basis of a PhD research project which aims to understand what is required for the housing industry to provide an increased and reliable supply of inclusive housing voluntarily. The study is currently being carried out in Brisbane, in the State of Queensland, Australia within three housing contexts: the private housing market, social housing and housing constructed within developments of the Queensland

Government’s Urban Land Development Authority. The study is expected to be completed at the end of 2012, at which time Livable Housing Design should be well on its way to meeting its first goal of providing minimum access features in 25% of all new housing built in 2013.

The research aims to contribute to the understanding of voluntariness within the Australian housing industry and what is required to increase the supply of inclusive housing.

A. Methodology

The study has taken an interpretive approach using twenty-eight semi-structured interviews, related documents and site observations of eleven newly-constructed dwellings. The data is analyzed in two ways; first, through a framework of program theory [65] and second, by analyzing the interviewee’s accounts [66]-[67] on the voluntariness of providing access features within their current housing practice. Given the timing of this paper in relation to the study, the analysis is not complete and the paper offers an interim discussion.

Each of the housing contexts has a different experience of providing access features. Privately developed housing in Queensland has no requirements for access features in the internal areas. Social housing, that is, government-managed housing and community-managed housing have access features regularly included to meet the needs of anticipated tenants and to ensure the legal requirements of non-discriminatory housing service can be met [12]. The Queensland Government’s Urban Land Development Authority (ULDA) currently requires ten per cent of the housing in its multi-residential developments to include access features [68]. With this in mind, a selective sample of dwellings was taken representing each housing context.

The dwellings were considered to be of regular stock designed with no specific client in mind, and not requiring access features due to any policy or funding requirements. Once a dwelling was identified, a semi-structured interview was held with the developer, designer and builder identified with each dwelling. In some cases an interviewee had multiple roles, that is, designer/builder, or developer/builder and in others there was also the presence of a site supervisor. The questions were structured around the elements of program theory (see Fig. 1) and Livable Housing Design’s minimum level was used as an example of a standard required from a voluntary code. For the relationship between housing contexts, dwellings and interviewees, see Fig. 2.

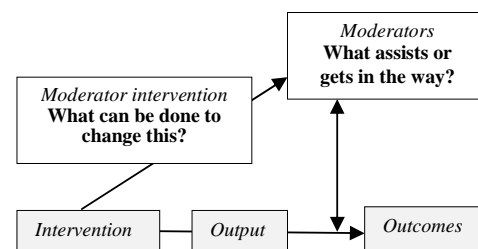


Fig. 1 Elements of Program Theory [65]

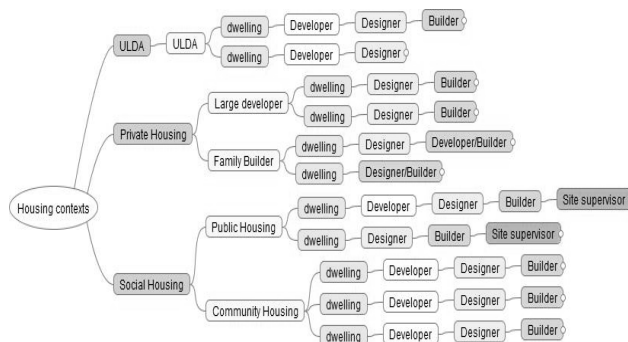


Fig. 2 Relationship between dwellings and interviewees

B. Findings – Program Theory

The findings from the analysis using program theory [65] indicate there is little reason for the housing industry to respond voluntarily unless there is a significant increase in demand. The two strongest moderators, that is, what assists or gets in the way of the program, reflect those identified in other constituencies [41]-[42]. They are cost or anticipated loss of profit, and lack of demand. A consistent demand for access features from buyers is the most persuasive moderator intervention; however, how to increase the demand for access features was considered to be problematic by the interviewees.

The cost of access features was consistently raised as an issue, yet, there was no consistency regarding the extent of the costs, beyond the obvious use of extra material in wall reinforcement and the use of non-standard items, such as 870mm door leafs. Some features, such as seamless transition into the bathroom, larger bathrooms, and hob-free showers, were generally accepted as the norm for higher-priced developments, reflecting that some demand was already evident, though not related to the access needs of older people or people with disability. These buyer preferences were ignored, however, in budget-priced dwellings. The lack of consistent response begs the question whether concerns about cost was a concern regarding any change *per se* from established building practices, and not related specifically to the provision of access features.

C. Findings - Accounts

Most of the accounts by developers, designers and builders reflected their formal role, that is, the level of responsibility they took in decisions regarding their voluntariness providing inclusive housing. The builders' accounts reflected a low level of responsibility and offered little resistance to the idea of providing access features in housing. For example, one builder stated, "We can build anything an architect...can draw". In contrast, developers' accounts reflected a high level of responsibility for the outcome and with that an overall reluctance to make any change to established practice unless it was profitable. One developer epitomised this by stating, "It will only work voluntarily if they make money out of it".

All but three interviewees placed instrumental value on their reasons for supporting or not supporting a voluntary response. They appeared to be concerned primarily about the tangible benefits a voluntary response would have or not have

for them or for others connected to them. A supportive response from a developer was, "I also see [the inclusion of access features] as one opportunity for us to lead the market", whereas an unsupportive response was, "The developer's not going to do it unless he gets a premium for it or gets all his money back". Three interviewees placed representative value on their response, that is, their choice represented who they were and what they stood for, and these were supportive. One designer said, "I would consider [it] a minimum for any good design – any reasonable design". No interviewee presented their value of choice to be symbolic, that is, making a choice because simply having the choice was important. Levels of responsibility and values of choice within the accounts of the twenty eight interviewees are shown in Table I.

TABLE I
LEVELS OF RESPONSIBILITY AND VALUES OF CHOICE WITHIN ACCOUNTS

Levels of responsibility	Supportive	Non-supportive
1 Doer (taking no responsibility for the outcome)	I 5 builders R 0 S 0	I 1 builder R 0 S 0
2 Interpreter (taking qualified responsibility)	I 4 designers R 2 designers S 1 builder	I 3 designers R 0 S 1 developer
3 Conceptualiser (taking full responsibility)	I 4 developers R 0 S 0	I 8 developers R 0 S 0

I = Instrumental, R = Representative, S = Symbolic

The findings thus far indicate that those interviewees who assume the greatest responsibility (the developers) are the least unsupportive. It is their choices which are likely to have the greatest impact on whether a voluntary response by the housing industry will work. Their preference for instrumental value of choice suggests that if the process offered tangible benefits to them and others connected to them, they would be more supportive. This matches with the findings using program theory where it was found that if buyers demanded access features or the provision of access features increased demand, then the developers would support the inclusion of access features. In contrast, those interviewees who assumed the least responsibility (the builders) were generally supportive of the inclusion of access features. This may be due to the interview process. It is generally easier to be amenable and to agree, particularly when their assumed level of responsibility towards the outcome is negligible.

In summary, the analysis to date indicates that a voluntary strategy will work only if there is an increase in demand for access features to the level that it would warrant a change in established housing provision practices, and that as a consequence, there would be tangible benefits to the developers.

VII. DISCUSSION

The paper previously suggests three reasons why housing is inaccessible and that a deep commitment to social inclusion needs to occur before this practice is overcome. The findings of the research indicate that a voluntary response by the housing industry in providing inclusive housing is unlikely to provide this level of commitment. A voluntary strategy will respond only to the natural limits of disability when the industry considers it to be of tangible benefit to them and others connected to them.

A voluntary approach avoids regulation or over-riding policy that would intentionally safeguard against thoughtless design or adverse socio-spatial influences. If awareness-raising is used as an alternative, Leder [53] suggests that the experience must be significant, perhaps life-changing, before a real understanding and ensuing long-lasting adjustment to established design and building practices occur. Regulation with education and awareness training has been found to be the most reliable method to alter established practices [69]. Regulation also meets with resistance, and the ensuing negotiations typically lead to compromise, with the needs of more severely disabled people typically not being met [41]-[43].

The research indicates that it will be the level of buyer demand that will stimulate the intentional supply of inclusive housing, thereby the level of inclusion of older people and people with disability in communities. This should not be confused with fashion or the "invisible hand" [70] within the housing market, which has unintended positive consequences for older people and people with disability. Currently, many housing designs in Australia offer larger entries, open-plan living, large ensembles and hob-free showers which make some parts of some housing more accessible. Many proponents of universal design aim for a greater consciousness of the value of these trends for older people and people with disability.

Imrie [71] questions the reliance on market-driven strategies to provide accessibility. He raises the fundamental question whether inclusion is a social justice issue or a by-product of a profit-driven housing market which has adopted universal design practices because it suits them. The Australian Government and COAG has a responsibility to interpret their social justice commitments into policy regarding inclusive housing, to monitor the progress of the voluntary strategy, and intervene if the targets are not being met.

VIII. CONCLUSION

Older people and people with disability in Australia have been marginalized and excluded from communities, in large part, due to the lack of inclusive housing. The housing industry and community leaders consider an increased supply of inclusive housing can be provided voluntarily. The research outlined in this paper indicates that a voluntary strategy is unlikely to work without the significant incentive of increased and consistent buyer demand. It also calls to question whether the social justice goal of inclusion should be left to the interests of the housing industry and the buyer market.

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REFERENCES

- [1] Australian Government. *Australia to 2050: Future challenges*, Canberra: Commonwealth of Australia, 2010.
- [2] L. Saugeres, "(Un)accommodating disabilities: housing, marginalization and dependency in Australia," *Journal of Housing and the Built Environment*, Vol 26, No 1, pp. 1-15, 2010.
- [3] Australian Government. *A Stronger, Fairer Australia*. 2010.
- [4] Australian Government, *2010-2020 National Disability Strategy: An initiative of the Council of Australian Governments*. Commonwealth of Australia: Canberra, 2011.
- [5] People with Disability Australia. *Terminology as used by PWD*; Available from: <http://www.pwd.org.au/students/terminology.html>. 2011
- [6] Australian Bureau of Statistics, *Disability, ageing and carers, Australia: summary of findings*, Australian Government, Canberra, 2010.
- [7] Productivity Commission, *Caring For older Australians: Productivity Commission inquiry report*, Commonwealth of Australia, Canberra, 2011.
- [8] Productivity Commission, *Disability care and support: Productivity Commission inquiry report*. 2011, Commonwealth of Australia: Canberra.
- [9] National People with Disabilities and Carer Council, *Shut out: the experience of people with disabilities and their families in Australia*, Australian Government, Canberra, 2009.
- [10] United Nations. *Convention on the rights of persons with disabilities and optional protocol*, 2007.
- [11] Major Cities Unit, *State of Australian cities*, Commonwealth of Australia, Canberra, 2011.
- [12] Commonwealth of Australia, *Disability Discrimination Act*; Canberra. 1992, p. 1.
- [13] Australian Institute of Health and Welfare, *Housing assistance in Australia 2011*, pp. 5-15, 2011.
- [14] B. Judd, D. Olsberg, J. Quinn, and O. Demirebilek, *Dwelling, land and neighbourhood use by older home owners*, AHURI Final Report No. 144. Australian Housing and Urban Research Institute, UNSW-UWS Research Centre, Sydney, 2010, p. 4.
- [15] A. Beer, and D. Faulkner, *21st century housing careers and Australia's housing future*. AHURI Final Report No. 128, Australian Housing and Urban Research Institute, Southern Research Centre, Hobart, 2009.
- [16] A. Jones, D. de Jonge, and R. Phillips. *The role of home maintenance and modification services in achieving health, community care and housing outcomes in later life*, AHURI Final Report No. 123, Australian Housing and Urban Research Institute, Queensland Research Centre, Brisbane 2008.
- [17] J. Bringolf, "Hope I die before I get old: the state of play for housing liveability in Australia," in *5th State of Australian Cities Conference*, Australian Sustainable Cities and Regions Network, Melbourne, 2011.
- [18] B. Judd, "Enclave or engage? Mixity and housing choices in an ageing society," in *23rd Enhr Conference 2011*, Toulouse, France, 2011.
- [19] R.G. Golledge, "Special populations in contemporary urban regions, in *Our changing cities*, J.F. Hart, Ed. Johns Hopkins University Press, Baltimore, 1991.
- [20] Australian Human Rights Commission, *Guideline on the application of the Access to Premises Standard*, Australian Government: Sydney, 2011.
- [21] Australian Building Codes Board, *Building Code of Australia*, SAI Global, 2011.
- [22] People with Disability Australia, *Accommodating human rights: a human rights perspective on housing, and housing and support for persons with disability*, 2010.
- [23] Australian Network for Universal Housing Design, *Strategic plan 2011 - 2013*; Available from: <http://www.anuhd.org/content/strategic-plan>, 2011.
- [24] Australian Human Rights Commission. *Building access standards: an investment in the future*. Available from:

- http://www.hreoc.gov.au/about/media/media_releases/2010/18_10.html, 2012.
- [25] B. Shorten, *Media Releases - National Dialogue Agrees to Improve Accessible Housing Options*, Available from: http://www.billshorten.fahcsia.gov.au/mediareleases/2009/Pages/nat_dialogue_improve_hsing_options_27oct2009.aspx, 2009.
- [26] National Dialogue on Universal Housing Design. *Strategic plan*. Available from: http://www.fahcsia.gov.au/sa/housing/pubs/housing/Documents/housing_living_standards.pdf, 2010, p. 1.
- [27] National Dialogue on Universal Housing Design, *Livable housing design guidelines*, Available from: http://www.fahcsia.gov.au/sa/housing/pubs/housing/Documents/universa_l_housing_design.pdf, 2010.
- [28] Building Commission Victoria, *Welcome: design ideas for accessible homes*, Melbourne: Building Commission Victoria, 2002.
- [29] Department of Public Works, *Smart and sustainable homes design objectives*, Brisbane: Queensland Government, 2008.
- [30] Australian Government, *Design for life*, Available from: <http://www.yourhome.gov.au/technical/index.html>, 2008.
- [31] E. Karol, "Inclusive design and the new home market: the West Australian situation," *Architectural Science Review*, Vol. 51, Issue 1, p. 80-83, 2008.
- [32] Government of South Australia, *Housing strategy for South Australia: green paper*, Adelaide: Department for Families and Communities and South Australia, 2011.
- [33] Queensland Government, *Absolutely everybody: enabling Queenslanders with a disability: whole-of-government action plan 2011-14*, Brisbane: Queensland Government, 2011.
- [34] R.P. Malloy, "Inclusion by design: accessible housing and mobility impairment," *Hastings Law Journal*, Vol. 60, Issue 4, pp. 699-699, 2009.
- [35] S. Smith, S. Rayer, and E. Smith, "Aging and disability: implications for the housing industry and housing policy in the United States," *Journal of the American Planning Association*, Vol. 74, Issue 3, pp. 289-306, 2008.
- [36] V.C. Warnock and F. E. Warnock, "Markets and housing finance," *Journal of Housing Economics*, Vol. 17, Issue 3, pp. 239-251, 2008.
- [37] U.S. Census Bureau, *Americans with disabilities: 2005*, U.S. Department of Commerce, Ed. Washington DC: U.S. Census Bureau, 2008.
- [38] J. Ozanne-Smith, J. Guy, M. Kelly and A. Clapperton, *The relationship between slips, trips and falls and the design and construction of buildings*, Melbourne: Monash University Accident Research Centre, 2008, unpublished.
- [39] L. Chenoweth and D. Stehlik, "Implications of social capital for the inclusion of people with disabilities and families in community life," *International Journal of Inclusive Education*, Vol. 8, Issue 1, pp. 59-72, 2004.
- [40] P. Carnemolla and C. Bridge, *Home Modifications and their impact on waged care substitution*, in *Home Modification Information Clearinghouse*, Sydney: University of NSW, 2011, unpublished.
- [41] C.M. Nishita, P.S. Liebig, J. Pynoos, L. Perelman, and K. Spegal, "Promoting basic accessibility in the home: Analyzing patterns in the diffusion of visitability legislation," *Journal of Disability Policy Studies*, Vol. 18, Issue 1, p. 2-13, 2007.
- [42] R. Imrie, *Accessible housing: quality, disability and design*, London: Routledge, 2006, p. 133.
- [43] S. Kose, "How can the exploding senior population be accommodated?: Japanese struggle towards inclusive design," *Journal of Engineering Design*, Vol. 21, Issue 2, p. 165-171, 2010.
- [44] L. Crabtree and D. Hes, "Sustainability uptake in housing in metropolitan Australia: An institutional problem, not a technological one," *Housing Studies*, Vol. 24, Issue 2, pp. 203-224, 2009.
- [45] N. Spanbroek and E. Karol, "Ageing at home - are we prepared?" in *The 2nd International Conference for Universal Design*, Kyoto, Japan, 2006.
- [46] Housing Industry Association, *Accessibility in residential buildings: policy statement on accessibility in residential buildings*, available from: <http://hia.com.au/hia/content/Policy/region/National/classification/Building%20Policy/article/IS/HP/Accessibility%20in%20Residential%20Buildings.aspx>, 2007.
- [47] J. Bringolf, "Barriers to universal design in Australian housing," in *International Conference on best practices in universal design at FICCDAT*, Toronto, Canada, 2011.
- [48] Housing Industry Association, *Submission by the Housing Industry Association to the housing and building policy*, Department of Planning and Community Development on the regulatory impact statement into visitable and adaptable housing, available from <http://hia.com.au/media/~media/Files/MediaMicrosite/Submissions/Visible%20and%20Adaptable%20Housing%20-%20Victoria.ashx>, 2010.
- [49] Victorian Government, *Accessible Housing - public consultation on the visitable and adaptable features in housing regulatory impact statement*, available from: <http://www.dse.vic.gov.au/DSE/nrenpl.nsf/LinkView/10E80E70836F36FBCA2575DE001CFC9EB6D5337005FB3718CA2572CF007A0F0A>, 2010.
- [50] B. Gleeson, "Can technology overcome the disabling city?" in *Mind and body spaces: geographies of illness, impairment, and disability*, R. Butler and H. Parr, Eds. London: Routledge, p. 98-118, 1999.
- [51] Center for Universal Design. *Definition of Universal Design*. Available from: http://www.ncsu.edu/www/ncsu/design/sod5/cud/about_ud/udprinciplestext.htm, 1997.
- [52] H. Hahn, "Disability and the urban environment: a perspective on Los Angeles," *Environment and Planning D: Society and Space*, Vol. 4, Issue 3, pp. 273-288, 1986.
- [53] D. Leder, *The Absent Body*, Chicago: The University of Chicago Press, Chapter 1, 1990.
- [54] J. Collier, "The Art of Moral Imagination: Ethics in the Practice of Architecture," *Journal of Business Ethics*, Vol. 66 Issues 2-3, pp. 307-317, 2006.
- [55] W. Wolfensberger, "A Brief Overview of Social Role Valorization," *Mental Retardation*, Vol. 38, Issue 2, pp. 105-123, 2000.
- [56] W. Wolfensberger, "Social Role Valorization: A Proposed New Term for the Principle of Normalization," *Intellectual and Developmental Disabilities*, Vol. 49, Issue 6, pp. 435-440, 2011.
- [57] N. Smith, "Design dilemma: driving a consumption obsessed society into an unsustainable future," in *First international conference on engineering, designing and developing the built environment for sustainable wellbeing*, Queensland University of Technology, Brisbane, 2011.
- [58] T. Dalton, R. Wakefield, and R. Horne, *Australian suburban house building: industry organisation, practices and constraints*, AHURI Positioning Paper, no. 143, Australian Housing and Urban Research Institute, RMIT Research Centre, Melbourne, 2011.
- [59] I.M. Young, *Responsibility for justice*, New York: Oxford University Press, 2011.
- [60] B. Williams, "Voluntary acts and responsible agents," *Oxford Journal of Legal Studies*, Vol. 10, Issue 1, pp. 1-10, 1990.
- [61] S. Olsaretti, "Freedom, force and choice: against the rights-based definition of voluntariness," *Journal of Political Philosophy*, Vol. 6, Issue 1, pp. 53-78, 1998.
- [62] S. Olsaretti, "Debate: The Concept of Voluntariness: a reply," *Journal of Political Philosophy*, Vol. 16, Issue 1, p. 112-121, 2008.
- [63] B. Colburn, "Debate: The Concept of Voluntariness," *Journal of Political Philosophy*, Vol. 16, Issue 1, pp. 101-111, 2008.
- [64] T. Scanlon, *What we owe each other*, Cambridge Massachusetts: The Belknap Press of Harvard University Press, pp. 248-294, 1998.
- [65] P. Dahler-Larsen, "From Programme Theory to Constructivism: on Tragic, Magic and Competing Programmes," *Evaluation* Vol. 7, Issue 3, pp. 331-349, 2001.
- [66] S.M. Lyman and M.B. Scott, *A sociology of the absurd*, New York: Appleton-Century-Crofts, 1970.
- [67] T. Orbach, "People's accounts count: the sociology of accounts," *Annual Review of Sociology*, Vol. 23, Issue 1, pp. 455-478, 1997.
- [68] Urban Land Development Authority, *Accessible Housing: ULDA guideline No 2* Brisbane: Urban Land Development Authority, 2011.
- [69] M. Scotts, K. Saville-Smith, and B. James, *International trends in accessible housing for people with disabilities: working paper 2*, Wellington: Centre for Housing Research Aotearoa, 2007.
- [70] E. Rothschild, *Adam Smith and the Invisible Hand*, The American Economic Review, Vol. 84, Issue 2, pp. 319-322, 1994.
- [71] R. Imrie, "Universalism, universal design and equitable access to the built environment," *Disability and Rehabilitation*, pp. 1-10, 2011.
- [72] J. Bringolf, "Universal design: is it accessible?" *Multi - The Journal of Diversity and Plurality in Design*, Vol. 1, Issue 2, pp. 45-52, 2008.