The ISSUES Project

SUE Success Story: AMELIA

Common goal, different perspectives

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EXECUTIVE SUMMARY

"A Methodology for Enhancing Life by Increasing Accessibility" (AMELIA) is a tool, designed by part of the AUNT SUE research team, which can be used to establish how different policy decisions affect accessibility issues relating to a particular area. The AMELIA research team have successfully collaborated with Hertfordshire County Council to demonstrate how the tool can be used to assess the accessibility impacts of policy decisions as well as providing evidence of cost effective decision making. The two parties were able work together successfully because both groups had an interest in the project succeeding. The project encountered barriers such as language differences between researchers and staff and differences in time and resource constraints at different stages of the project. This report studies the impacts of the collaboration between the AMELIA research team and Hertfordshire County Council and makes recommendations for similar knowledge exchange projects.

1. INTRODUCTION

Being able to access a variety of facilities and services such as shops, medical services and visiting friends are important for maintaining a high quality of life. Disabled, elderly and otherwise vulnerable people may have reduced abilities to access the services and facilities they need which can have a considerable impact on their lifestyle.

"A Methodology for Enhancing Life by Increasing Accessibility" (AMELIA) is a software tool built by researchers at UCL as part of the Accessibility and User Needs in Transport for Sustainable Urban Environments (AUNT SUE) Research Programme (AUNT SUE 2010). It is a user friendly policy orientated interface to a Geographical Information System (GIS).The tool can be used to establish how different policy decisions affect the number of people who can access a chosen facility.

Local Authorities are required to demonstrate that their policies are helping to increase social inclusion. However, there is currently no comprehensive way to ensure that transport policies do take social inclusion into account (Mackett, Achuthan et al. 2008). The aim of the AMELIA tool is to fill this gap by giving policy makers the means to establish how many people with particular access issues are affected by certain policy interventions. Therefore, it was hoped that the main impact of AMELIA would be to improve accessibility for groups of people with known difficulties such as the elderly, disabled people and single parents, through more effective policy decisions by Local Authorities using AMELIA.

This investigation has studied the influences that AMELIA has had on improving accessibility in the UK. The findings in this report are based on background research and interviews with the key players involved in the project.

2. AMELIA

The research leaders on the AMELIA project were Prof. Roger Mackett and Dr. Helena Titheridge, who are both members of the Centre for Transport Studies at University College London (UCL 2010). Much of the practical work was conducted by Kamal Achuthan. Roger Mackett had worked previously with the transport department at Hertfordshire County Council (HCC) so he contacted them again to ask them if they would be interested in acting as a Local Authority prototype test for AMELIA (Mackett 2010). HCC were keen to be involved in the project and so a team led by Trevor Mason (also on the AUNT SUE steering group) became the main point of contact for the AMELIA research team.

AMELIA was designed to test in a comprehensive and systematic way the extent to which transport policies can increase social exclusion (Mackett, Titheridge et al. 2010). The GIS interface presents the user with a set of possible policy actions and then quantifies (including cost if the data is available) and maps the effect of these policy actions. AMELIA requires data on the group of people being considered, the nature of the facilities they wish to reach and how they can travel there (e.g. people in wheelchairs wishing to travel to a hospital via bus). The output of AMELIA is to indicate how many more people can reach the opportunities as a result of the policy actions. Table 1 below gives an example of the results of different policy actions which have been input into AMELIA for providing access to the main shopping location for elderly people in St Albans (Mackett, Titheridge et al. 2010). The results show that although providing benches every 100m is not the cheapest option, it is the most cost effective because of the large number of people who have increased access due to this option.

Table 1. AMELIA results of policy actions to increase access to the shopping area of St Albans for elderly people (Mackett, Titheridge et al. 2010)

Policy Action	Unit Cost	Number of Units Installed	Total cost	Extra people who can reach the centre	Cost/person
Providing dropped kerbs at existing crossings	£2000 each	23	£46,000	24	£1917
Providing crossings every 100m	£25,000	11	£275,000	0	N/A
Providing wider pavements	£65 per m^2	3689 m^2	£239,805	13	£18,447
Providing benches every 100m	£500 each	314	£157,000	524	300

3. DRIVERS AND BARRIERS

Common Goal

The project built on previous contact between UCL as the research team and HCC as the policy making end user (Mackett 2010). The AMELIA research team were keen to get some feedback from real end users on how AMELIA would and could be used by Local Authorities. Working with HCC would hopefully allow any unforeseen practical issues to be observed and solved at an early stage. The Council would also be able to provide feedback on how the tool could be improved or modified to better suit the needs of the organisation.

There were also potential benefits for HCC to the collaboration. Trevor Mason felt that the council's expertise did not cover the area of access improvement adequately so collaboration with AMELIA would offer an opportunity to gain experience in this area (Mason 2010). It was also important for the Council to be seen to be interacting with cutting edge research as much as possible.

Most importantly, AMELIA offered an opportunity to address a gap in the legislative requirements of the Council to address accessibility needs for vulnerable groups. HCC were aware that this was an issue which was gaining increasing importance across different levels of government and were keen to show their involvement (Mason 2010). AMELIA would allow them to demonstrate their consideration of accessibility issues across their county as well as providing evidence of the cost effectiveness of chosen policy choice.

These were the drivers which lead to the common goal of the AMELIA project collaboration. However, there were also barriers to progress caused by differences between research and policy making work processes.

Different Priorities

Initially the researchers found the HCC team unresponsive to their work, although they understood that this was due to different time pressures and resource constraints experienced by the Local Authorities (Mackett 2010). Once the project was underway, it was the Council which found the systematic approach of the scientific method cumbersome and slow to progress (Cameron-Rollo 2010; Mason 2010). This may be due to different priorities between the teams – when one side was forced to concentrate in detail on a particular part of the project, this would be interpreted as "a hold up" by the other team. However, these differences did not halt the collaboration and discussions with both parties revealed that they regarded this as part of the process of learning to work in research-end user collaboration.

For the researchers, a harder to solve problem occurred when trying to adapt AMELIA to the Local Authority needs. The team were aware that in order to make the tool as transferable across Local Authorities as possible the tool would not be able to rely on any datasets specific to one county (Mackett 2010). This was achieved through the use of national databases such as Ordinate Survey map data. However, a further complication arose when it was discovered that HCC had a different GIS system to AMELIA and, unfortunately, AMELIA was discovered to be highly system specific. As well

as reducing the transferability of the tool, this meant that the research team did not receive the feedback they were expecting from their end user.

Finally, Hertfordshire County Council found that the language used by researchers was sometimes a barrier to communication and sometimes intimidated staff. Trevor Mason felt that the way to approach this issue was for researchers to understand that Local Authority staff were not experts in the academics' own field of interest:

"If you want to get a Local Authority involved, talk to them in a way that they understand rather than in academic language."

(Mason 2010)

However, overall both parties considered the collaboration a success and the Local Authority staff in particular commented that the experience had stimulated them to think in different ways and use new techniques (Cameron-Rollo 2010; Mason 2010).

4. THE IMPACT OF AMELIA

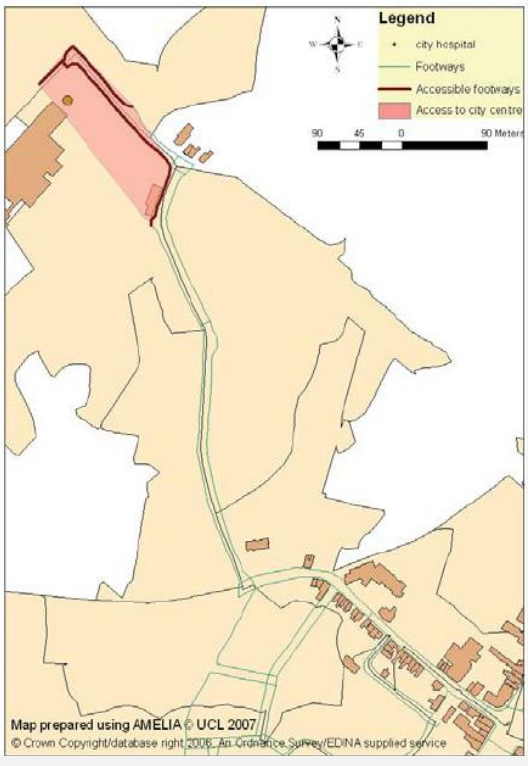
The main impact of this project was to demonstrate the ability of AMELIA to be used, as it was intended, as a systematic method for a Local Authority to compare the accessibility impacts of different policy options and make the most cost effective choices for the county (Mackett, Achuthan et al. 2008). Several examples of the impacts that AMELIA has had on social exclusion in Hertfordshire County exist. The case study in Box 1 details one of these examples from St Albans (Hertfordshire County Council 2008).

As well as having an impact on accessibility for people in Hertfordshire the project built on links between UCL and HCC which still exist today (Cameron-Rollo 2010). This is testament to the ongoing wider collaboration and commitment to partnership between the two organisations.

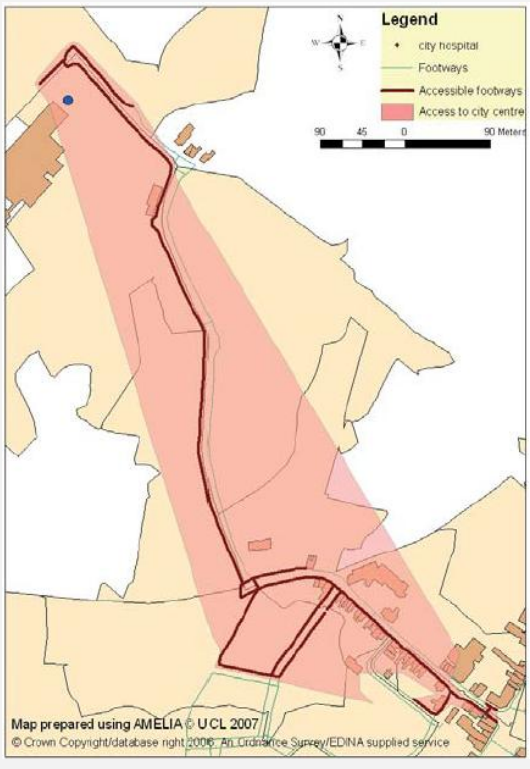
Box 1: The Impact of AMELIA: Disability Access in St Albans

An engineering project with a limited budget wanted to consider disability access to the local city hospital. AMELIA was used to identify the most cost effective and suitable access options to increase access for the mobility impaired. The results showed a mix of dropped kerbs along the pavement on one side of the main road and extra pedestrian crossings would improve access greatly for disabled people. The maps below show the areas which had reasonable access to the hospital before and after the recommendations of AMELIA were adopted (Hertfordshire County Council 2008).

Accessibility before the scheme



Accessibility after the scheme



Finally, the AMELIA research team hope other Local Authorities throughout the UK will follow this example set by the HCC collaboration and take up AMELIA as a policy tool (Mackett, Achuthan et al. 2008; Achuthan, Titheridge et al. 2010). Mackett envisions a possible wider impact to come through the promotion of the tool through an organisation such as the Department for Transport (Mackett 2010). Such an endorsement would raise the profile of the tool amongst Local Authorities greatly.

5. CONCLUSION

AMELIA has influenced some specific policy decisions made within Hertfordshire County, hopefully increasing accessibility in the area for people who were previously vulnerable to being socially excluded. It has also allowed the Local Authority to make cost effective decisions, a factor which is especially important in turbulent economic times. It is hoped that the greatest impact of AMELIA is still to come – if the tool is taken up by Local Authorities across the UK it will have an impact on accessibility projects across the country.

The collaboration between researchers at UCL and Hertfordshire County Council was particularly effective because of the shared drive for the project to succeed from both sides. Excellent contact between the project teams, which is still ongoing today helped them overcome barriers such as differences in pace and systems of work and language barriers between researchers and their Local Authority colleagues.

The lessons learnt in the project may serve as recommendations to future knowledge exchange collaborations between researchers and policy makers in the UK:

- Partnerships are most effective when both sides are keen for the project to succeed. If parties can find a common goal then they will both have motivation to work on the project together.

- Patience is needed when working in collaborations with different types of organisations. As understanding grows between collaborating groups, those involved begin to appreciate the reason for delays. Over time, adapted the work of different groups to increase compatibility may allow projects to proceed more efficiently.

- If research is to be successfully taken up by policy makers there must be a strong drive from academics to work with Local Authorities. Although drive from both sides is important, the push from academics is vital for areas of science which might be less well known outside academic circles. If AMELIA is to have an impact beyond Hertfordshire County Council the research team may need to seek out further collaboration with Local Authorities across the UK.

REFERENCES

Achuthan, K., H. Titheridge, et al. (2010). "Mapping accessibility differences for the whole journey and for socially excluded groups of people." Journal of Maps: 220-229.

AUNT SUE (2010). "A Methodology for Enhancing Life by Increasing Accessibility." (Available at: http://www.aunt-sue.info/toolkit/amelia.html. Accessed on 26th October 2010).

Cameron-Rollo, J. (2010). "Discussion on the practical use of AMELIA." (Personal Communication. 20th October 2010).

Hertfordshire County Council (2008). "Towards Better Transport in Hertfordshire - Annual Progress Report." (Available at: http://www.hertsdirect.org/envroads/roadstrans/transplan/ltp/. Accessed on 28th October 2010).

Mackett, R. (2010). "Discussion on the impact of AMELIA." (Personal Communication. 15th October 2010).

Mackett, R., K. Achuthan, et al. (2008). "AMELIA: A tool to make transport policies more socially inclusive." Transport Policy **15**(6): 372-378.

Mackett, R., K. Achuthan, et al. (2008). "AMELIA: making streets more accessible for people with mobility difficulties." Urban Design International **13**(2): 80-89.

Mackett, R., H. Titheridge, et al. (2010). "Using AMELIA to test the impact of policies." (Available at: http://www.aunt-sue.info/assets/files/AMELIA/flyer_Policyimpacts.pdf. Accessed on 27th October 2010).

Mason, T. (2010). "Discussion about Local Authority use of AMELIA." (Personal Communication. 20th October 2010.).

UCL (2010). " Department of Civil, Environmental and Geomatic Engineering website." (Available at: http://www.cege.ucl.ac.uk/. Accessed on 27th October 2010).