

Digital cities and transferability of results

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1. Introduction and presentation of the research

This article is based on a research conducted within the framework of the Targeted Socio-Economic Research (TSER) program of the European Commission and more specially for the Social Learning in Multimedia (SLIM) project coordinated by the Research Centre for Social Sciences of the University of Edinburgh.

The SLIM research has three main aims:

- to analyse the dynamic process of development of multimedia projects
- to draw lessons from the developed projects
- to make recommendations to the European Commission regarding the policy in the multimedia field.

In a first step, the SLIM research has surveyed the development of multimedia in different countries, i.e. the countries involved in the project: United Kingdom, The Netherlands, Germany, Denmark, Ireland, Switzerland, Norway and Belgium. The French situation has also been analysed by the Belgian team. In a second step, the research focuses on more specific areas of development of the multimedia technology: Education, Cultural Content and Industries, and the Public Sector. In these areas, the stress has been made on the user, mainly on its involvement in the development of projects and on its representation, i.e. the ideas that people, mainly the designers of multimedia applications have in mind regarding the user when they construct their technological project.

Within the Public Sector, we have decided to concentrate our attention on digital cities. This problematic of digital cities has been chosen because to our point of view, it prefigures some tendencies that will be observed in the public sector in the next years or that are already observed nowadays in some countries.

The current or actual tendencies that could influence the public sector are:

- the decrease of the traditional leadership of the State on several matters and the need for a new leadership (CEFRIO, 1997 and 1998);

- the problems of inefficiency of the public administration less and less accepted by the users - the citizens - in a context of increasing competition and of the immediate satisfaction of their needs, and the need for a new model of management within the administration (Baquiast, 1996, Dieng and alii, 1997, Frissen and alii, 1992);
- the increasing importance of the automated/processed information (CEFRIO, 1997);
- the increasing gap between citizens, i.e. the disappearance of real public places where people can meet and discuss (Graham and Aurigi, 1997), but also the increasing gap between the citizens and their government;
- the opposition between the globalisation of commercial, economic, cultural and other types of exchange, and the importance of the local context, i.e. the emergence of the 'glocalisation' phenomenon, ... (Graham and Marvin, 1996; Businaro, 1994; Morley and Robins, 1995).

To our opinion, it is easier to observe these tendencies at a local level on a rather fixed area than to look at the public sector in general. Digital cities could then be seen as laboratories of the integration of multimedia technology within the public place.

2. Presentation of the seven case studies

Within the SLIM study devoted to the public sector and more specifically to digital cities, seven case studies have been deeply analysed. These cases go from virtual communities projects to real on-line local administrations. They are briefly described below.

2.1. Short description of the cases

2.1.1. Copenhagen Base (CB): A User-Driven Database

CB, Copenhagen Base, was originally an information database initiated during the late 80s following an indirect demand from the citizens of the Danish capital. Indeed, they were frequently asking for a lot of public information, mainly in the libraries of the city, and the idea came to centralise this information in a database fed by the 6 municipal departments.

It soon appeared that the first version of the database required too many technical competencies and that information was difficult to find because of the structure of the base, very close to the functional breakdown of the departments. The webmaster that was engaged after this first informal assessment created a new structure, changed the technology, adapted the system and proposed a new version of the database in February 96, accessible through Internet and quickly available via text-TV. He also ask for a first official assessment of the new structure, with the help of an external institute, on the information structure, the technology and the users' point of view. Since then, some changes had been made to the project and a "new look" version of the base has been proposed in December 97.

Throughout the project, users have been involved, mainly internal users from the local administration through a user group, but also external users, i.e. citizens, namely through the official assessment.

This case study emphasises a lot of relevant information like the opposition between the information administrative logic and the logic of the citizens demand, the vulnerability towards the technique, the importance of the assessment in this project and the involvement of the users.

2.1.2. Craigmillar Community Information Service (CCIS): The Problem of the Community Concept and the Need to Create User Constituencies

Craigmillar is a depressed district of Edinburgh. Former industrial place, it has now a lot of social problems with 80% of the local population receiving social allocations. In this context, a lot of community groups try to improve this situation. The aim of CCIS, Craigmillar Community Information Service, is to link all these community groups in order to share information and maybe to create an on-line community.

At the beginning of the project, CCIS was only a BBS. Since 96, when the Web technology began to emerge, a Web service, open to the world through Internet, was adopted by CCIS alongside the BBS (as a complementary service). For some people, this questions the definition of the users, of the communities concerned by this project and of a 'community service'.

In fact, users seem to have always been a problem for CCIS. Local users show a low interest for the project and the local manager, convinced of the need of "*local depth but global breadth*", felt obliged to find new user constituencies, by taking on the role of European hub of the OneNet network, and through taking on a new role as an Internet service provider.

Even if CCIS is more a community on-line project than a digital city, it emphasises the difficulty to create the feeling of community and of membership of such an on-line community. It also underlines the fact that on-line developments, by providing on-line services, are developed in order to try to improve local life conditions in marginalised areas through re-creating a membership feeling.

2.1.3. De Digitale Stad (Amsterdam) (DDS): Between Public Domain and Private Enterprise

De Digital Stad (DDS) has been the first digital city in the Netherlands and one of the first in Europe. Nowadays, it is usually taken as example of a successful project in that field but it seems that this successful experiment is difficult to transfer and to adapt with the same success elsewhere.

DDS is born in 1994 as a first ten weeks experiment during the local elections. This private initiative, from cultural organisations and hackers association mainly with the objective of experimenting with new media in a social and societal vision, has been subsidised by the city as a limited social experiment.

These ten weeks were very successful and after hard times of reflection, the project continues with some changes in the main actors. In order to survive, DDS has to become more commercial and to offer commercial services, but together with free services (e-mail address, Web pages hosting, ...) to follow the originate goal.

The use of the city metaphor helped to attract people and made Internet accessible and understandable to the lay-men. DDS interface has changed three times since the first step, from a text based version to more developed WWW and graphical elements. The interface really integrates the metaphor of the city with quarters, squats, metro, ...

As a successful project and maybe as a role-model, the DDS case raises interesting questions like the use of the metaphor and its consequences, the influence of changing techniques on the interfaces and the transferability of these experiments to other digital cities projects. It also underlines the importance of the information representation in the digital cities, the communication structure, the nature of interactivity, the difficulty to configure the user and to integrate user needs into technical developments.

2.1.4. Digital Metropolis Antwerp (DMA): DDS's Sister

DMA has been the first digital city developed in Belgium. This project can also be seen as the first application in which the optical broadband network of Antwerp (MANAP) is used for services aimed at the citizenry. It is integrated within a lot of multimedia initiatives taken in the city for some years.

The structure of DMA is very close to the DDS project of Amsterdam due to the collaboration between the two cities in the development of these two digital projects. It uses different interesting metaphors like 'bridge' (between the administration and the inhabitants) or 'quarters' which indicate specific themes (sport, culture, education, ...) rather than specific places or streets.

The DMA project, which aims at a direct interactive link between local authorities and Antwerp's citizens, comes within a more global move of administration re-organisation, namely the decentralisation of the inner-administration.

Apart from offering a lot of interactive MM services to the citizens, the City also emphasised the necessity to provide access to these services for the citizens, namely via cybercafés, cyberbooths and access from home with a modem or through an Internet provider. The possibility of accessing DMA via the cable TV is thoroughly studied and tried.

The DMA case emphasises the importance of the re-organisation process of the local administration in order to be able to provide better services to citizens. It also shows examples of ways of creating a feeling of community within virtual inhabitants and of trials to integrate the local administration in the everyday life through the quarters sections of the Web site.

2.1.5. Frihus 2000: A New Version of the Telecottage Project of the 80s

Frihus 2000 is a project of information highway infrastructure development in the municipality of Frederikstad in south-east Norway. The main objective of this project is the economic development of an economically backward region in the context of regional and even parochial sentiments against the central government.

In June 1997, a feasibility study on this project has been conducted and involved different user groups in the Norwegian tradition of industrial democracy and user orientation. In the conclusion of this study and in the current developments of the project, it appears that only the technical requirements and demands have been heard and followed, maybe due to the importance of Telenor, the most important Norwegian telecom operator, in the process. As it appears now, Frihus 2000 will probably be very close to an adapted version of the Telecottage experiments of the 80's, i.e. a type of teleworking but with high-level telecom infrastructure, which however did not prove to be very successful in the past. The Frederikstad telecottage, announced in February 1998, will open in March 1998 but a new feasibility study is needed in order to evaluate the potential of this project.

This case, even if not really a digital city case, raises a lot of relevant questions on the transferability of experiments at different levels: the will from Telenor to transfer the experiment to other cities if successful but also the inspiration taken from other projects, in New Brunswick (Canada) and Salford (UK), but very different in size and ambitions. It also emphasises the local strategy of a national telecom operator in the deregulation context, the difficulty to put feasibility studies in concrete form and the fact that user orientation and requirements do often 'compete' with technical experts opinions and that in this 'battle', experts win most of the time.

2.1.6. Geneva-MAN: A High Speed ATM Network for International Organisations

Geneva-MAN is a project of developing a high speed ATM network in the city of Geneva, especially for the international organisations based there. The original idea initiated in 1994 came from a small number of telecom responsible persons of some non governmental organisations who wanted to adapt and update the possibilities of the existing network.

In a first phase, a pilot project was set up with objective of testing the potentialities of ATM, developed by one of the participants to this project. A second phase will be implemented in order to use this network as the backbone of the new local infrastructure.

This project involves a lot of different actors with different and sometimes incompatible objectives and at the present time, even backed by a strong political will and the clear support of Swiss Telecom, the former national operator, did not lead to any convincing result. Another project, Smart Geneva, whose aim is to

economically exploit the infrastructure and to propose services to firms and households of the canton is also waiting for operational decisions.

Even if the project is not yet operational, the current state of development gives some interesting elements of reflection like the difficulty for Swiss Telecom to develop its infrastructure in a area that could be considered as a very attractive market and the will from the telecom operator to search for 'local' markets in the context of deregulation, the predominance of the technical experts in the users representation, the consequences of the high number of participants involved in the project and the problems raised by the ATM technology.

2.1.7. Périclès: A Technology Push Vision

Périclès is a global IT project in the City of Namur, in the French-speaking part of Belgium. It includes three different applications that were put together in the same project for reasons of economies of scale and maximisation of the possibilities of developing and marketing generic applications. These three applications are the PBFLOW project which concerns the exchange of documents (planning permission at first) between the local administration, the architects and the regional administration based in Namur; the Syrecos application, together with European partners in a European funded project of teleservices for SMEs training and, finally, the citizens application. All three projects are presented as the digital city of Namur but referring to our definition, only the citizens application is worth studying. Moreover, different problems have led to the split up of the global project in its three components with specific development rhythms, objectives and actors, even if some are common.

Even if, according to a study made in Summer 1997, it seems to be one of the most developed digital cities of the French-speaking Belgium because it offers free e-mail address and 2 PC for public access¹, Périclès's citizens application proposes very few relevant MM services to the citizens.

This project is characterised by a large number of partners and a lack of a unique project manager, a multitude of objectives included in an utopian discourse, conflicting and misunderstanding relations between the main actors, no users implication in the project following a technology push vision, and globally, a clear conception of the city as a huge and modelled information system. However, some learning processes have been observed like the development of an Intranet inside the local administration, induced by Périclès.

2.2. Short analysis of the case studies

These seven cases underline the diversity of the possible situations in terms of digital cities and the fact that there is no unique definition of this notion. Indeed, the term 'digital city' has several meanings, sometimes very different. There is actually no common definition of that concept and it is rare that authors adopt a

¹ When compared with the equipment provided in other digital cities of this SLIM sample, it gives the feeling that the French-speaking digital cities have still a long way to run before becoming real digital cities offering a lot of services to citizens.

strictly identical sense. 'Digital city' is used as well to qualify the rapid growth of information and communication technologies that is currently transforming advanced industrial cities as to designate on-line services —mostly services available through the World Wide Web— managed by municipal government, businesses, citizens or users and that either present local content or use the urban metaphor to facilitate users understanding.

Reviewing some of the literature about this topic emphasises the lack of a common definition of the digital city. Furthermore, some authors do not even approach the problem and do not specify what they really mean by this notion. In addition, we note a great diversity of terms used to indicate sometimes very similar experiences: *Digital City*, *Virtual City*, *Wired City*, *City of Bits*, *Web-City*, *Webbed City*, *Electronic Town*, *Digital Town*, ... On the other hand, some may use the same term in two opposite senses. Therefore, it is very difficult to elaborate an accurate definition of the digital city and, consequently, to constitute a rigorous basis of comparison.

To resume, it seems that the concept of digital or virtual cities or whatever the exact name it takes concerns two main types of situation:

- a project of developing a telecom infrastructure in a city closed from the wired cities concept of the 70' s. This is what is seen with the Frihus 2000 and Geneva-MAN SLIM cases;
- a set of services mainly available on the Web site and that are more or less linked with the concept of city. Sometimes, like in CB, DMA or Périclès, the Web site refers to the real city. These are grounded digital cities, that means cities which '*relate coherently to the development of specific cities (...) and concentrate on integrating Web content located within the physical space of one city*' (Graham and Aurigi, 1997, p. 36). This is not necessarily the case as observed in DDS which rather corresponds to a non-grounded digital city, i.e. a Web site which '*use the familiar interface of a "city" as a metaphor to group together wide ranges of Internet services located across the world*' (Graham and Aurigi, 1997, p. 36).

These seven case studies are also developed according to different models. We have identified three main models. These models represent three specific points of a scale which goes from the model of control/regulation (each element of the project is controlled) to the model of 'laisser-faire', i.e. a typical bottom-up approach where everything comes from the 'basis' and is progressively integrated in the project. These models are mainly theoretical. However, they seem to rather well represent some situations.

The first model for instance is clearly observed in Périclès. As explained in the case study (van Bastelaer, 1998), the initiators wanted to control the main features of the project: the technology, the actors, the chosen applications. They made strong hypotheses especially on the city, conceived as a huge information system where the administration takes a lot of place and where the user - the citizen - is only an element of the information system. Such solution is clearly adopted to reduce uncertainties mainly at the level of the user. As underlined in the

theoretical description of this regulation model proposed in the first part, the time schedule is determined at the beginning of the project. In this case, the three applications, citizen-server, Syrecos (teleservices for training, dedicated to SMEs) and PB-Flow (inter-administrations application for the exchange of planning permissions) had indeed a defined time schedule. In fact, it appears that this time schedule has been lengthened for the citizen application but at the origin of the projects, things were conceived on a rather manner with defined and short term deadlines. Mainly regarding the citizen application, there has been no negotiation with the users before the 'delivery' of the product and even after this delivery, there is no place for negotiation, discussion and proposals from the users. From our point of view, the choice of this control model has had important consequences on the development and the results of the project. Much of the problems encountered could, according to us, be explained by this model.

The model of experimentation is at the middle of the scale. This corresponds to a situation as observed in DDS and maybe also in DMA, where the different elements of the project are proposed by the initiators but on a flexible manner, i.e. adapted following the results of the experiment and the behaviour of the users. In these two cases, the project seems to be never closed, the life cycle is never finished and this impression is amplified by the constant changes of the interface due to technological evolutions.

In our opinion, DDS has not always been a pure example of experimentation. Even if the first ten weeks of the digital city may be considered as a social experiment and as such belong to the experimentation model, there are also some elements of *laisser-faire* even if it was not either a pure *laisser-faire* model. Indeed, there was a clear distinction between designers and users but the beginning of DDS gives the impression of a bottom-up initiative which, for us, is close to the *laisser-faire* model. Because the social experiment was rather open and mainly concerned the infrastructure and not the content which was 'under the responsibility' of the users. Users were incited by the designers to create content and offer services. This is an hybrid case between experimentation and *laisser-faire*. Afterwards and mainly due to the transition to a private status, the objectives were adapted and it seems that DDS went back to experimentation with some elements of control.

DMA either is not a pure example of experimentation. Indeed, at the beginning, it looked closer to a control model with the importance of the local authorities and especially of Telepolis which manages everything. With the influence of DDS, it opens little by little to arrive to a more experimental model giving more scope to users.

Regarding the '*laisser-faire*' or open model, except the DDS case at a certain period, we think that there is no clear example of that kind in the SLIM cases, no example of a situation where everyone, with no distinction between designers and users, contribute to the design of the multimedia application.

However, there are examples in-between the experimentation and *laisser-faire* models. CCIS is such hybrid case where there are elements of regulation coming from the local council and the Scottish office vis-à-vis the nature of what is

fundable under the purview of the 'urban aid' grant (from which CCIS gained funding). But, at the same time, CCIS is grounded in the milieu of voluntary organisations which it was established to serve. This also constitutes the user base - the users (the community groups) originated the project by founding the group that would eventually become CCIS. Thus, while there is a mode of control that is similar to the Périclès case (i.e. there are limits on what one can/not do with money from funding agencies), there is also the other stream in that the project is defined by the users (and now, to an extent by the need to enrol further groups of users). CCIS was not an experiment in the overt sense but it was an experiment in that the system was new and that new applications have been added over time (again to ensure funding).

3. Problems of the transferability process

The transferability of the results of an experiment or of a project is a basic requirement of most European funding projects that obliges to share experiences and to transfer results within the project. However, the SLIM cases of digital cities underline the difficulty of such process due to different reasons, mainly the importance of the context and of the actors, the 'interpretative flexibility of results' and the fact that most of the experiments and of their results are unknown.

3.1. Importance of the context and of the actors

Regarding the importance of the development context and of the main actors of the project, it is rather evident that a project that shares similar characteristics with another will provide different results if the context of its implementation is different. Moreover, the actors that conduct the project and especially their objectives also have an important influence on the development of the project. So, it is impossible to predict the results of the transfer of an idea, of a technological project which is never finished and will be subject to the interpretative flexibility of the local actors and to the influence of the local context. Of course, things can be learned from other projects but the initial context and especially the initial objectives of these projects have to be known and assimilated. People have to be aware that the influence of these other projects could be more limited than expected and that the transfer of these projects could not necessarily lead to the same results.

3.2. Interpretative flexibility of the results and relative notions of success and failure

3.2.1. Interpretative flexibility of results

Another explanation regarding the difficult transferability of results refers to the fact that these results are sometimes subject to interpretative flexibility. This means that they represent different things according to different actors. Some cases have shown that the results of experiences can also be flexibly interpreted and that, in fact, when being inspired by experiments conducted elsewhere, people interpret the results, draw the lessons that they want to draw and see the things that they want to see.

The example of the text interface in DMA and DDS shows this interpretative flexibility of the results. Indeed, the designers of DMA that clearly imitate the DDS interface decided not to use a text interface but rather a graphical one because the first interface will be unuser-friendly and will impede the access of some potential users. This statement is not based on the DDS experience where it was observed that the text interface was not perceived as a difficulty and did not constitute any major obstacle concerning the access to the digital city. The DMA designers clearly interpret or maybe misinterpret the lessons from DDS on this technical aspect of the interface.

3.2.2. Relative notion of success and failure

The interpretative flexibility refers to the relative notion of success and failure.

We are interested by this question of success and failure because most of the European projects on digital cities insist on the transfer of results from one experiment to another and more specially from one successful experiment to another. To be more precise, the focus is made on best practices rather than on successes but the question is the same. What kind of criteria are used to qualify a multimedia application or project as a success or as a best practice? Best compared to what? In these European projects, these notions are determining and our idea is that they are highly subjective and moreover dynamic.

Some of the SLIM cases try to assess the digital cities studied, either through the eyes of the interviewees or through the eyes of the researcher. This exercise underlines the subjectivity of such assessment. Indeed, a same multimedia project could be qualified as a success by some of the actors and as a failure by others or by the researcher. For instance, the DDS case could appear as a success because of its apparent attractiveness to many thousands of users and if the number of users is a criterion of success. However, it could appear as a failure because it has not led to successful successors yet. But it depends upon what is considered as a successful successor and if leading to only one of these successors could be seen as a success.

This is due to the fact that the criteria used are not necessarily the same. Sometimes they are even not precised. Moreover, the results of the assessment can change according to the period when it is made as underlined by the Périclès case.

This does not mean that it is not possible to use the criteria of success or failure, or the criteria of 'best practice' when transferring experiments but that the criteria and more precisely the unit of analysis must be clearly defined.

Indeed, even if this assessment process is difficult, according to us, it is useful because when transferring the results of an experiment or of a project, it is important to know whether this project could be qualified as a success or as a failure, i.e. whether lessons drawn from this case have to be followed or not.

In our opinion, usually, failures provided more relevant insights and are more constructive than successes. For a collective learning process, for the benefit of the society, it would maybe be better to diffuse and transfer failure results rather than successes while usually, the contrary is encouraged in programmes aiming at diffusing 'best practices'. Unfortunately, it is usually not easy to diffuse or transfer results of what could be considered as a failure. The main reason is that the actors themselves do not want to accept that their project is a failure and reject this statement because they have the feeling that it questions their capacity to set up and manage such a project. They do not want that other people in other cities or other countries take their project as the example of a failure, as the example of things that should not be done. This impedes frequently the diffusion of failures and the possibility to draw lessons from these failures.

3.3. The diffusion of the results

Finally, a precondition to the interpretation of results, being successes or failures, and to their adaptation to a local context is the fact that they are known. However, it appears that it is very difficult to make lessons and results, especially of failures as underlined above, known, and then learned. This is clear in the CB case where the webmaster has not heard from the former and numerous social experiments that have taken place in Denmark and that could provide him with interesting elements of reflection. The users, for instance, did not know either that the idea of over-information leading to under-information has already been emphasised in the literature on information and communication technologies or in other projects. This should question researchers and actors of a project on the best way to diffuse their results.

4. What is transferable at the end?

The core question of this last section is: what is transferable at the end? Our main idea is that the attention must be given to the process of development of the project, i.e. to the main steps of the project, to the main questions that have to be raised and solved during the development and that such 'roadmap' has to be widely diffused towards future initiators of digital cities. However, some answers or at least some possible answers can also be diffused but need to be enlightened by the specific context of development of the concerned digital cities.

This means that the major question that designers have to raise is 'what do we want to do with our digital city? what are our main objectives?' and other experiments have to be compared on the basis of these specific objectives and of other contextual elements.

We propose to identify the main steps of development of a digital city and the main questions regarding these steps. For some questions, several answers could be given and some examples shown but with clearly indicating their specificity and their context of development.

We have not finished the design of the roadmap or vade-mecum of digital cities. But inspired on some similar roadmaps made for the implementation of Intranet in administrations (Amouh, 1998) or for the set up of a community access centre

in New Brunswick (Connect NB Branché), we propose different steps that could become the structure of such roadmap.

□ **The context**

- Survey on the level of equipment and training on the main target publics: citizens, administrations, companies, schools?
- Analysis of the current access possibilities
- Survey and analysis of similar projects developed elsewhere. What can be learned from them?
- Analysis of the environmental resources and constraints
- Assessment of the existing Internet culture: what is the traditional meanings associated with communication in general and with Internet in particular in the different target groups as well as amongst the initiators?
- Analysis of the current political and administrative tradition regarding the democratic process, the involvement of the citizen, ...

□ **The objectives and the main actors**

- Identification of the main types of actors of the projects and of their resources
- Analysis of existing coalitions and of their potential influence on the project
- Precise identification of the objectives of the project, of the actors (what do we want to do?)
- A priori assessment of the potential conflicts between the objectives and between the actors

□ **The conception step of the project**

- Precise identification of the target public(s)
- Explicit description of the representations of the technology, of the users (main hypotheses) and of the city
- Set up of a coherent scenario regarding the different objectives
- Involvement of the users in the development process of the technical project: analysis of the informational needs or expectations, i.e. needs of information that will provide a real value added, use of social experiment methods and mainly test of the hypotheses and of the scenario and adaptation if necessary
- Reflection on the image of the city, on the notion of inhabitant and on the frontiers
- Reflection on the information to provide: type and nature, structure of presentation, choice of an appropriate language
- Analysis of the information flow and of the communication processes, proposals and set up of organisational changes if necessary

The set up of the project

Regarding the management

- Choice of a project manager and assessment of its means of action

Concerning the funding

- Analysis of existing and forthcoming solutions
- Within the solutions, analysis of the possibilities of conducting a public/private partnership

Regarding the technology

- Analysis of the existing technological possibilities and of the short term evolution
- Reflection on interactivity, user-friendliness, 'immediatety', ...
- Assessment of the existing technical competencies and/or the outsourcing solution for the maintenance of the multimedia project.

In terms of access possibilities

- Analysis of the existing possibilities
- If not enough existing possibilities, search of solutions for setting up new possibilities
- Within the solutions, analysis of the possibilities of conducting a public/private partnership

Regarding the training

- Assessment of the needs in terms of training
- Assessment of the internal resources and/or the outsourcing possibilities (private firm, university, public organisation, politics of stage, volunteer organisation, ...)

The assessment

- Set up of precise assessment procedures
- Establishment of assessment criteria
- Precision of the use that will be made of the assessment results

Conclusion

The focus on the transferability of results from digital cities experiments based on the analysis of seven European case studies underlines different elements:

- The notions of success and failure, even of best practice, are highly subjective and they need to be precised when used in a transferability process. The context of development, for instance, must be described to allow people to be more objective towards these notions. Moreover, the importance of failures, mainly regarding the possibilities of learning by the society, must be underlined.

- For different reasons, the process of transferability is more difficult than expected. People are looking for the best way to transfer results and to specific lessons to be drawn and transferred.
- This process is highly linked to the local context, mainly to the objectives of the project and to the participating actors. It is then important to precise this context when transferring results.
- The necessity of designing a methodology of transfer seems to be raised and such methodology must be validated. The adequate structure is still to be found.

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