SYSTEMIC WELLBEING BASED ON USER CENTRIC DESIGN AND EXPERIENTIAL LEARNING: MAKING NEW MEANINGS THROUGH IDENTIFICATION OF PATTERNS

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ABSTRACT

The paper is drawn from work in progress research funded by an Australian Research Council Linkage project. The collaboration spans the South Australian Department of Health, Flinders University, University of South Australia and Neporendi Forum Inc, an Aboriginal NGO and in partnership with Anglicare. The multidisciplinary research ensures that the service users together with the providers design what works, why and how on the basis of their perceptions of successful outcomes that have achieved wellbeing. We strive to use participatory action research to design and create a computer system that will enable people who are facing challenges such as homelessness, unemployment and domestic violence to build the capacity of the service providers by drawing on their own experiences.

The findings to date : a) demonstrate the importance of network governance for linking service users and providers and the role that ongoing communication can play in shaping policy. As Aristotle argued, being involved in dialogue on policy matters and applying the dialectical process in one's community is one of the ways to ensure a fulfilling life (which he called eudaimonia , on this see Nicomachean Ethics)[2] , provided cultural inclusion is supported by democratic structures and processes (see Elias and Lichterman 2003). b) support the idea that wellbeing is what is valued and necessarily includes basic needs. But these are insufficient to achieve wellbeing for self determination, unless it is supported by political and economic opportunities that result in becoming citizens with rights who are respected within the wider community. Empowering Indigenous organisations to achieve wellbeing for Indigenous people is a step in this direction (Rowse 2003).

INTRODUCTION

'What is in the nature of systems is a continuing re-viewing of the world, of the whole system, and of its components. The essence of the systems approach, therefore, is confusion as well as enlightenment. The two are inseparable aspects of human living. Finally, then, here are some principles of a deception-perception approach to systems:

   1. The systems approach begins when first you see the world through the eyes of another. Another way to say the same thing is to say that the systems approach begins with philosophy….

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[2] Irwin, T. 1985 *Aristotle Nicomachean Ethics* translated with Introduction and notes Hackett. Cambridge.

2. The systems approach goes on to discovering that every world view is terribly restricted.

…For those who think in the large, the world is forever expanding; for those who think in the small, the inner world is forever contracting.

3. There are no experts in the systems approach….

And finally, my bias:

4. The systems approach is not a bad idea" (Churchman, CWC.1979 : 231-232).

One of the greatest **management** challenges identified to date is the need to manage diversity (See Flood and Romm 1996) and the way service delivery is based on short term contracts that work against building up relationships over time.

The greatest **policy** challenge is to develop the capacity of the public sector and to work across disciplines, to understand better the nature of complex, wicked problems as they relate to social wellbeing and governance (Rittel and Webber 1984, McIntyre-Mills 2003, Bevir and Rhodes, 2003, a, b, White 2001, 2002, Rhodes 1997). Because complex, wicked problems (Rittel and Webber, 1984) are interrelated and have a strong value basis, understanding the perceptions of multiple stakeholders is of paramount importance.

The participatory action research project is about developing the capacity of the SA Health Department to understand what enhances wellbeing and social inclusion, why and how by listening to and learning from the experiences of the service users based at Neporendi Forum Inc. Aboriginal people tell stories and "spill their guts" (Schaffer and Smith 2004) and then are told that the service cannot meet their needs because it is not within "their preserve" and so they refer them to someone else. The links across organizations need to be better managed and people under duress with few resources need services to be co-located or very well connected through case work and communication channels. The key concepts are as follows:

1. Aboriginality (co-researchers definition)
- Understood as family connections and a history of marginalization and disadvantage. But it is also about survival against the odds and a celebration of spirituality, creativity and life.

2. Systemic Governance (McIntyre-Mills et al 2006).
- Ensuring all those who are at the receiving end of a decision are party to the decision making process (or well represented).
- Diversity is taken into account to the extent that it does not undermine the freedom of others.

3. Subsidiarity (Schumacher 1973, Singer 2002).
- Problems are best solved at the lowest level possible, in order to be able to draw on the lived experiences of people (see Polany1 1992, Wenger 1998 and Christakis with Bausch 2006 and the way these approaches are synthesised in McIntyre-Mills et al 2006).

4. Ashby's (1956) Law of Requisite Variety asserted complex decisions need to reflect the complexity of the people and the system they will impact upon. Our research tests the principle of subsidiarity and Ashby's Rule to establish whether:
- Participation in the design process can ensure that service delivery is better matched with perceived need, so that organizations can become more responsive to people.
- The more the principle of empowerment is applied (people involved in the decision making at the level where the decision is to be implemented) a) the

greater the match between the provider and the user and b) the level of wellbeing of the service user and the community.

- Compartmentalised thinking undermines accountability and risk management (Ackoff and Strumpfer 2003, Ackoff and Pourdehnad, 2001, Romm 2001, Wenger 1998, Wenger and Snyder 2000).

RESEARCH BACKGROUND

The SA Aboriginal community initiated the research and are the co-owners of the research process and its outcomes. The multidisciplinary team will contribute to redressing social inclusion issues by designing (see Banathy 1996, 2000, 2003) developing and testing a dynamic management tool together with Neporendi Forum Inc, Aboriginal researchers and the South Australian Department of Human Services. The challenge is to address co-morbidities and a number of issues[3] through creating meaningful theory that is tested out by those who experience the areas of concern and who will be affected by the decisions taken. This research has been peer reviewed by a national committee of the ARC and is supported by the Flinders Aboriginal Health Research Unit.

Neporendi is representative of the issues faced by Indigenous communities in other areas of Australia, such as: high levels of health-related issues, unemployment, homelessness, family violence and reduced education opportunities. The effects of family violence are wide-ranging, for instance: the criminalization of the offenders has financial, physical and psychological consequences for the women, children and men involved. It also has intergenerational consequences. Social inclusion, homelessness, unemployment, gambling, family violence and drug misuse are facets of a complex, interrelated problem[4] that requires a coordinated governance response

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[3] Co morbidity: the coexistence of substance use and mental health problems (PARC Co morbidity Project http:www.parc.net.au/comorbidmain.htm accessed13/09/2005. Culture, Spirit and Wellbeing: looking at the big picture Spirituality and Health Conference 2005, Adelaide.

[4] This is clearly demonstrated by the twenty year gap in life expectancy (Steering Committee for the Review of Government Services, 2003). Indigenous Australians experience unemployment levels 2.8 time higher than non-Indigenous Australians (if CDEP "work for the dole" scheme participants were include the rate would be much higher) and have average incomes significantly lower than non-Indigenous Australians across all regions (ABS, 2001, Steering Committee for the Review of Government Services, 2003). In South Australia 39.4 per cent of Indigenous Australians are employed however, 22.8 per cent are employed via CDEP (ABS, 2001). Home ownership levels are also affected with just 31.9 per cent of Indigenous Australians purchasing or owning their own homes compared to 69.5 per cent of non-Indigenous Australians (Steering Committee for the Review of Government Services, 2003). Around 2 per cent of Indigenous Australians live in caravans, cabins, tents or improvised housing (ABS, 2001). In South Australia 67 per cent of housing is rental accommodation (though this is affected by use of community housing and the relative youth of the Indigenous Australian population – home ownership being a product of increased age) (ABS, 2001). Indigenous Australians are more likely to be subject to violence (murder, assault, sexual assault and family violence) with hospitalization rates of 13.3 per 1000 compared to 1.0 per 1000 for non-Indigenous Australians (Steering Committee for the Review of Government Services, 2003). Homicide rates are also higher with Indigenous Australians representing 15 per cent of the victims despite accounting for only 2.4 per cent of Australia's population (Steering Committee for the Review of Government Services, 2003). Indigenous Australians are 15 time more likely to be in prison than non-Indigenous Australians with juveniles 19 times more likely to be detained (Steering Committee for the Review of Government Services, 2003). In South Australia 17 per cent of the prison population were Indigenous Australian (ABS, 2001). The Steering Committee for the Review of Government Services (2003) identified three priority areas for action to address these appalling statistics. They are creating "Safe, healthy and supportive family environments with strong communities and cultural identity"; "Positive child development and prevention of violence, crime and self-harm"; and "Improved wealth creation and economic

across departments in the public, private and non-government sectors. However, current compartmentalized thinking in respect of some aspects of human services has led to disciplinary specializations. Service providers need to develop the capacity to work across disciplines and to understand better the nature of "joined up" social problems as they relate to social well-being and governance (See Ogawa 2000, Davies and Kelly, 1993; Ackoff and Pourdehnad, 2001; Duhl, 2002; Gaventa, 2001). This is not merely a change to policy and practice, but a move away from the perception and definition of issues in separate compartments.

STATEMENT OF THE PROBLEM

The ideal type of bureaucracy advocated as the 'best worst option' to support democracy has become a core project for many leading social scientists (see du Gay,2005), but Savage (in du Gay 2005: 331) argues there is need for caution:

> "The evidence ... indicates that the alignment of bureaucracy with the institutional habitus of the professional and managerial middle class closes down one historical avenue for the advancement of more popular concerns."

Whilst bureaucracy has a vital role in ensuring that democratic states can operate to support freedoms to the extent that they do not undermine other freedoms, it is also undeniable that democracies are built on participation. Research shows increasingly that marginalized people are excluded from active roles in shaping policy, for a range of reasons including lack of skills, connections and confidence. The premise on which this research is based is that bureaucracy is in need of an overhaul, because it is not sufficiently responsive to social and environmental needs. I am not suggesting networks replace bureaucracies , but that networks are used as a **means** (amongst others) to make human service organizations more responsive so that they can match responses to perceived needs and narrow the accountability gap between agents and principles. The cynicism about network governance is evident in the following quotation:

> "Another alternative to the market model, as well as the traditional models of bureaucracy, is the 'dialectical' or participatory organization. …This change in management is at once a manipulative mechanism for increasing efficiency and a genuine moral commitment to participation (Thomas 1993). Whether the participation is authentic or not, it is difficult for an organization to deny involvement and access to its employees and even to its clients…The spread of network conceptualizations in the social sciences has been paralleled by a proliferation of network practices in governance (Scharpf 1991; Kenis and Schneider 1991). No longer can governments impose their wills through legal instruments and , if necessary, coercion; they must now work to achieve something approaching consensus among a large group of self interested parties who have some influence over the policy. Governing in most industrialized democracies has become a process of bargaining and mediating rather than applying rules (Kooiman 1993). …For developing and transitional regimes these changes are even more problematic than for industrialized countries…"(Peters 2001:8).

Nevertheless the need to develop the capacity of public sector organizations to meet service needs and to enhance outcomes has been stressed in a bid to balance the scales

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sustainability for individual, families and communities" (Steering Committee for the Review of Government Services, 2003:1).

towards the public good and away from entrepreneurism and leaching talent from non government organizations. For example, Fukuyama argues (2004) that it is vital that development initiatives focus on ways to enhance the capacity of the state, rather than developing non government organizations at the expense of a strong civil service (2004).

The aim of this research is to build the capacity of the service providers, by drawing on the service users experience and to explore how wellbeing is achieved by working with meanings and relationships more deeply with service users and providers. The research is about perceptions about how the service users strive to achieve wellbeing in terms of their lived experiences and is thus far more than information management. It is about ontologies or meanings of what constitutes wellbeing in particular contexts. People who experience the policy outcomes in their everyday lives need to fine-tune the policy by communicating their ideas in an ongoing way (Espejo 2006).

Understanding different constructs and perceptions is the starting point for so-called 'Knowledge management' using scenarios based on possible options have to be able to encompass complex social, cultural, political, economic and environmental dimensions (Kahane 1992:3).

 If knowledge management is about striving for better understanding of perceptions, then it can support wellbeing. The research findings to date support the idea that wellbeing is what is valued and necessarily includes basic needs. But these are insufficient to achieve wellbeing for self determination, unless it is supported by political and economic opportunities that result in becoming citizens with rights who are respected within the wider community. Empowering Indigenous organizations to achieve wellbeing for Indigenous people is a step in this direction (Rowse 2003)[5] . We are in the process of:
1. **Testing the following hypothesis**: The greater the usage of knowledge management systems to address complex problems (such as homelessness, family violence, drug misuse use, unemployment and social inclusion issues), the better the problem solving outcomes for human service users and providers.
2. **Exploring the following research question**: To what extent can the self-learning knowledge base a) assist in tacit and professional knowledge management based on comparing maps of service providers and users?; b) result in improved decisions that enhance quality care/services for clients?

RESEARCH APPROACH

The participatory approach involves all relevant parties in actively addressing the areas of concern(Wadsworth, 1998). The project develops an open '*Design of Inquiring Systems'* (West Churchman 1971, 1982) and ensures that the service users are part of *a community of inquiry and practice* together with service providers. The research is systemic in that the users tell the providers what works, why and how and they design a better way of doing things, thereby contributing to participatory democracy (McIntyre –Mills 2003, 2004, 2005a,b). Complexity can be understood in stories and pictures and they form the basis for trying to model complex responses to

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[5] Rowse,T. 2003 " Tim Rowse reflects on three conferences about Indigenous rights and the campaign for a treaty. Australian Policy online www.apo.org.au

needs. It is profoundly sad to tell a story and then not to receive a response. The aim is to:

- **Identify** the gaps in service delivery pertaining to social inclusion and complex problems.
- **Provide** a dialectical (Lind and Lind 2005) means of ensuring that knowledge management through networking supported by a computer system is empowering (Castells, 1996) to the workforce and the most marginalized Australians.
- **Document** tacit and explicit knowledge of Indigenous and non Indigenous Australians and to share it to help address the policy issues.
- **Develop** and pilot an integrated systemic management tool to enhance the workforce capacity to manage referrals and to ensure that user and service options can be better matched (Ulrich 1983, 2001).
- **Build capacity** across service users and providers to improve health, housing and welfare (to achieve greater social inclusion) requires a paradigm shift in the way social problems are understood and treated.
- **Ensure** that the availability of services can be updated.
- **Make a contribution** to theory and practice.
- **Address problems systemically** across sectors and disciplines.
- **Model** complexity in perceptions, values and issues in 'what if' scenarios to improve strategic policy making decisions and predictions. This is the function of both the computer system and the civics process.
- **Create iterative communication and action learning processes**.Once the dreaming pathways have been created based on an analysis of their stories, the next step is to share the de-identified material in conversation with small groups of participants.

The social justice benefits of knowledge management to the organization; staff and service users are[6]:

> "Responsiveness based on matching the needs of the user in terms of age, gender, cultural requirements for Indigenous and non Indigenous users and health needs and the service providers in a recursive feedback system, based on soft systems modeling.
>
> Timeliness, the quick identification, contact and access to most or all appropriate service providers, (not to be confused with the capacity of the each service involved).
>
> Minimum backtracking, the individual service pathway can be mapped out to ensure continuous progress towards desired outcomes.
>
> Minimum staging, the client isn't moved from one service to another in sequential stages with needs evaluation processes (often duplicating previous similar processes) occurring at each stage.
>
> Organizational data that can be analyzed to determined network gaps or inefficiencies, patterns of use, social and operational costs".

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[6] The contribution made by David Corbett of Anglicare, to developing the aims of the research are gratefully acknowledged. Anglicare has contributed 'in kind' assistance to this project and has made it possible to consult with both service users and providers so as to provide a wider base for the research sample.

The theory of sociocybernetics (Beer 1974) stresses that understanding non linear relationships is a first step to developing policy responses. The purpose of this research is to explore the relationships more deeply with service users and housing providers in the public and private sectors in order to build trust and mutual understanding to enhance the policy performance match between agents and principals (Warren, 1999, Uslaner 1999).

The steps[7] for undertaking the research are as follows:

1. Invitation to do action research with Neporendi, on basis of previous research.
2. Establishing rapport through participatory action research project on domestic violence funded through a small grant from Community Benefit SA. Participation as volunteer
3. Listening actively to narratives and not judging or passing judgmental comments. Narrative enables people to explore and reflect and make meaning
4. Identification of the area of concern with the participants and the formation of a partnership that built on previous research in South Australia and Central Australia with Aboriginal Australians.
5. An ethics approval process that involved all the partner organizations and the Aboriginal elders.
6. Developing relationships and trust based on past work, current continuity and availability and future commitment Narratives and response to 5 conversation prompts/questions collected from service users and providers which explored the problems.
7. Data collection from observation, listening to narratives. Analysis of rich pictures from participants.
8. Creating personal meaning maps through drawing soft systems maps .
9. Creating shared group maps and identifying archetypes in an iterative approach using PAR
10. Participants are encouraged to identify patterns for themselves and to learn from their experiences.
11. Testing the patterns of response by asking whether the users agree with them
12. Enabling comparison between their story and the typical stories from which they select on the basis of choosing the cluster of core factors that characterize particular narratives.
13. Construction of soft systems maps, coding and analyzing the narratives and descriptions, giving weightings to the number of times items were mentioned.
14. Developing a proforma for the design of a knowledge base, based on the emergent themes to address solutions[8]
15. Testing the design by using a walk through based on questions and ticking off factors from a map created by all the participants
16. Self selection of factors from the NVivo " factor map" of core building blocks will help to identify which archetype they are closest to. Personalising the factor map by adding factors by placing the new factor as close as possible to existing factors and describing the new factor. Conditional scenarios will enable participants to assess the implications for making changes in their lives.

A generic computing algorithm for handling multi-variate and multi-dimensional resource allocation exists within the computing discipline and this will be adapted to enable an analysis to answer questions regarding the extent to which matrix team

management can meet the needs of staff and service users and to establish where the gaps are in service delivery. Problems of organizational and social complexity occur in combination and are interconnected (see Rittel and Webber, 1984).

Service user as co-designer

Information Technology has rarely, if ever, been applied successfully to such an area as meeting complex human needs. One outcome of the ARC Project will be to develop and evaluate a computing system that applies a concept called Mesodata that allows the domains of databases to be more complex (intelligent), learn from results, accommodate both hard (regulations) and soft (human preferences) constraints, be user friendly and provide options rather than single recommendations. The participants are assisted by the research team to develop an applied management tool that facilitates co-ordination of directed services and that is responsive to Indigenous discourses, models and processes. Knowledge management (KM) can be a process of working with different domains, discourses or areas of knowledge, rather than in specialized areas, in order to understand the ways in which problems are defined and perceived and to innovate ways to solve problems with the participants. It is more than information management using computers (Long 2002); it is based on understanding the value of diverse ways of knowing through narratives and drawing conceptual diagrams for problem solving with the stakeholders. This version of KM strives to improve better communication and better understanding. Social cognition is about how individuals and groups perceive the world 'out there'. The computer design is based on the principles of subsidiarity (Schumacher 1973, Singer 2002) and Ashby's law (1956) of social cybernetics ensuring that those at the receiving end of a decision are party to the decision making process. Designing and developing a knowledge base of healing pathways or tracks based on experiences of those who have shared their wisdom.

Participatory action research is used to set up the collaborative framework and to build existing relationships. The dynamic process of service delivery and referral will be modeled by means of the system. The system will ensure that only general data are made available and that confidentiality of service users will be preserved. Neporendi along with organisations with which it is closely linked have tested a paper-based version of the design and the testing and refinement process continues. Mapping is something that people already do when trying to explain the connections across a number of variables[9]. Some of the questions in the research conversations build on the research experience that the team brings from other projects.

PRELIMINARY ANALYSIS OF THE PATTERNS AND THEMES

"Shadow lines", writes Kinnane, are "wide lines of negotiation that we all use to make sense of our difference and interconnections" (379) (Kinnane cited in Schaffer and Smith 2004: 118)

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[9] Rich pictures were built up based on data collected from the informants using the Neporendi services. In summary the soft systems map the way in which service users and providers understand a problem. It includes the many variables they think are relevant and it includes their perceptions on why they think the variables are relevant (Fonow and Cook, 1991; Stanley and Wise, 1993).

> "Cuts leave scars. Scars leave tracks. Tracks can be followed." (Kinnane in Schaffer and Smith 2004: 118)

Each of the 50 *participant service users* have contributed to the design of the knowledge base through their initial research conversations and the use of organic analogies(see McIntyre-Mills 2007). The analogy of healing through weaving together strands of experience is central and powerfully resonant to the Narranjiri women, as are the analogies of pathways in the landscape of life and branches in the tree of life.

The next steps were to discuss the mapping with the co-designers and to test out the ideas in a pilot study with the service providers to ascertain if the system enabled better outcomes to be achieved as far as the users are concerned. Each of the 50 participant *service providers* have contributed to the design of the knowledge base through their research conversations. A preliminary analysis of the data (Deakin 2006)[10] shows **service providers** do not differ greatly in their approaches to service delivery, but that the organisations in which they work have different terms of reference and different organisational cultures.

Designing the computer program to aid understanding by both service users and providers

Stories from Aboriginal men and women are analyzed (see March et al 1999) in terms of 6 typologies to represent typical (but **not fixed archetypical**) approaches (life in balance, rebuilding, making a transition, keeping it together, not coping and at rock bottom). These typologies are seen as overlapping **domains** that change over time as the lives of the men and women change.

Changes from one domain to another are summarised as 6 dimensions (in baskets, out baskets, barriers, turning points and services that worked for them). The overarching architecture for the knowledge base in this model as illustrated below:

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[10] Deakin,J. 2006 The Phronesis of Participatory Governance , unpublished paper presented at Work in Progress Seminar , Flinders Institute of Public Policy and Governance . Deakin, Jon 'Participation in Governance is Common Sense' to the AHURI, June 2006, researcher's symposium, Adelaide.
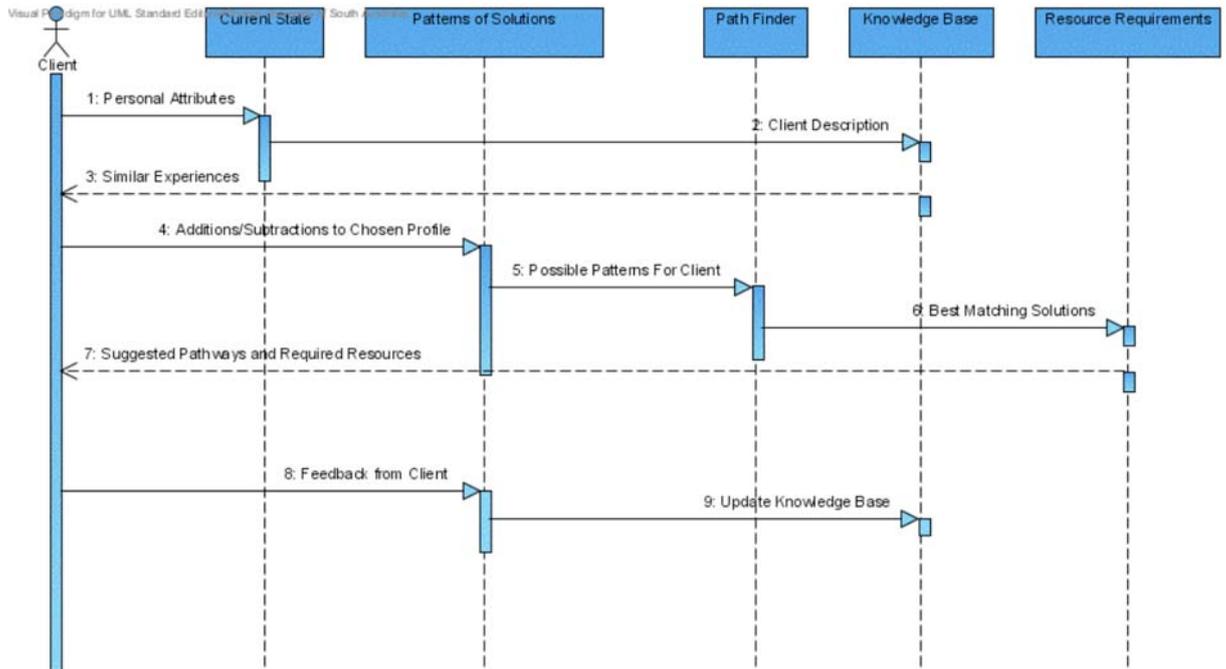
Figure 1: Sequence Diagram of System , De Vries 2006

5.2. Healing pathways and contextual matches

Conversations lead to my being shown artwork that represented in both abstract and associational terms that life is about making a journey, personal growth, being rooted in culture and reaching out to others. Choices are made on the basis of learning from experience. The value of this project is that the learned experiences can be shared with one another.

Based on an analysis of the data, wellbeing for service users can be described in terms of the following 6 typologies that will be used as typical scenarios in our computer program:
1. *'Being employed'* and 'able to help others', because their 'life is in balance'.
2. *'Rebuilding'*
3. *'Making a transition'* by using a combination of services
4. 'Keeping it together' after leaving a violent situation and trying to control drug and alcohol misuse – use cigarettes extensively
5. *'Making the break' from* an unsatisfactory way of life
6. *'Not coping'* and unable to leave or repeatedly returning to a violent situation.

Instead of using a flat continuum from 1-6 , we modelled a series of overlapping spirals spanning holistic, integrated service delivery to fragmented and compartmentalised delivery of services as options with many variants in between (See Downes 2006: 36).

Those who are most in need require the most integrated services and the most participation in decision making.

Those who are least in need require the least integrated services and are able to draw together services for themselves and act as facilitators for others, volunteers in service delivery or act as service providers for others.

The challenge is to map the turning points for the a) better or b) worse that lead to changes in life and to c) identify the barriers from the point of view of both service providers and users.
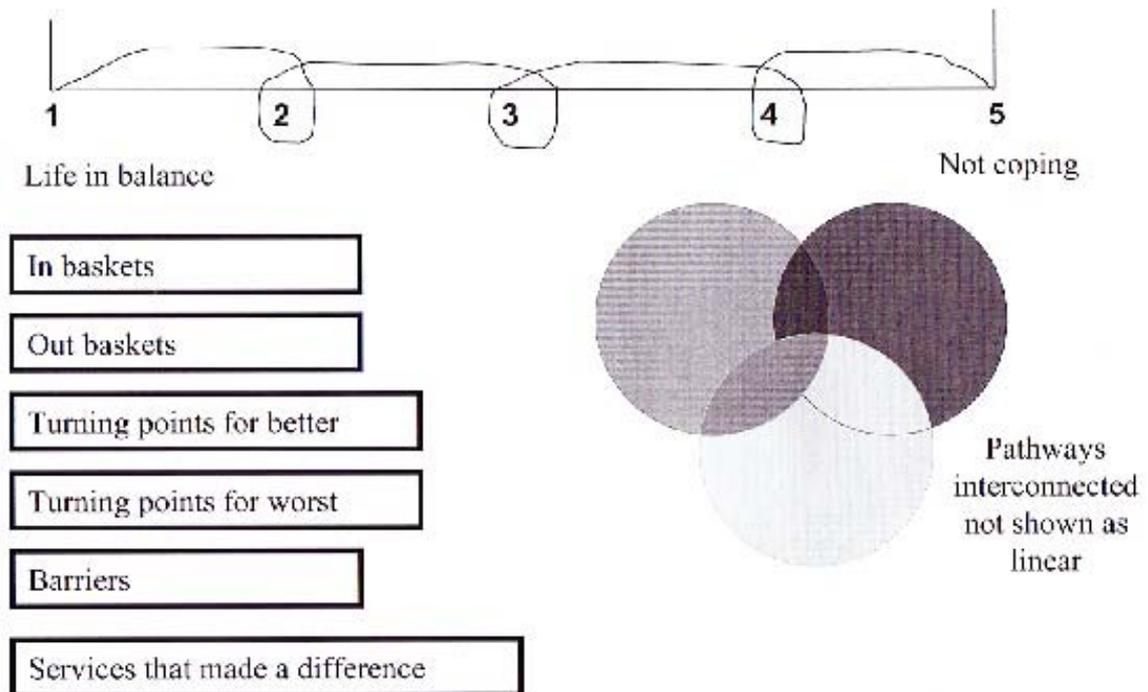

Figure -2. Healing Pathways in McIntyre-Mills et al 2006:287.

The data organised within the proformas highlighted the themes and the relationships between them (Figure 1). Further analysis and organization into an ontology of issues will fully describe these themes and provide the structure for discovering "pathways" for the individual(Figure 2,3) .
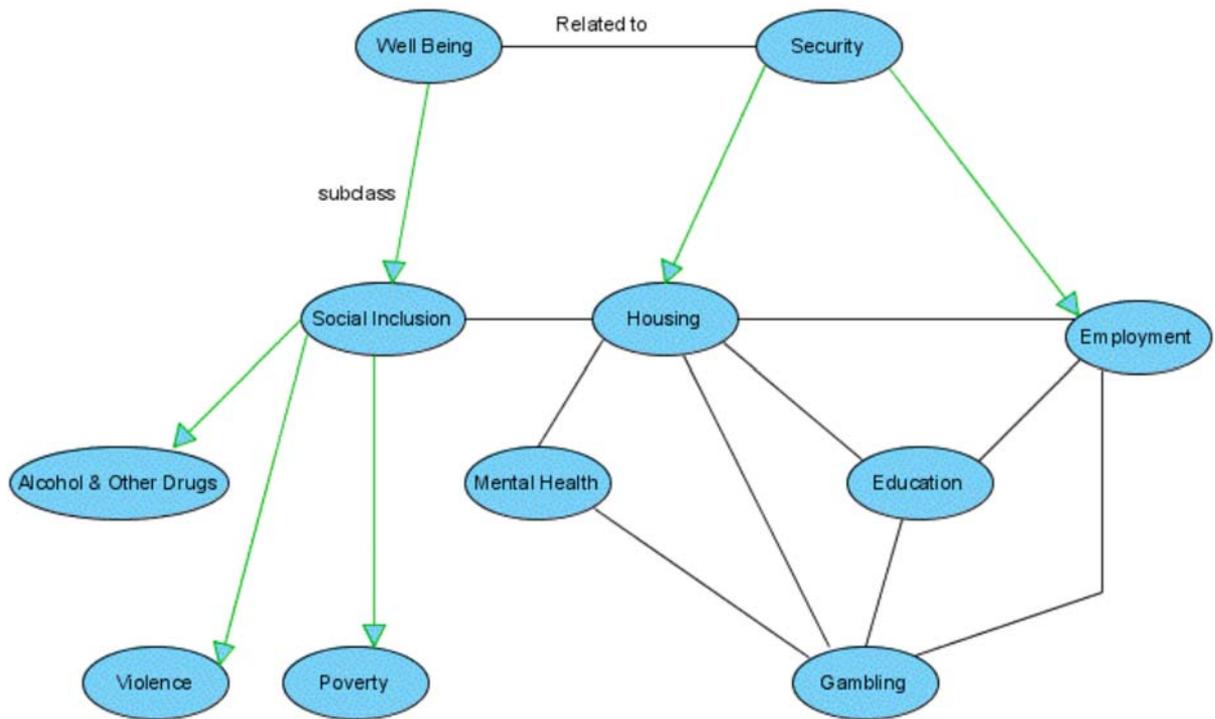
Figure 3. Graphical structure of issues and their inter-relationships (De Vries in McIntyre-Mills et al 2006: 295)

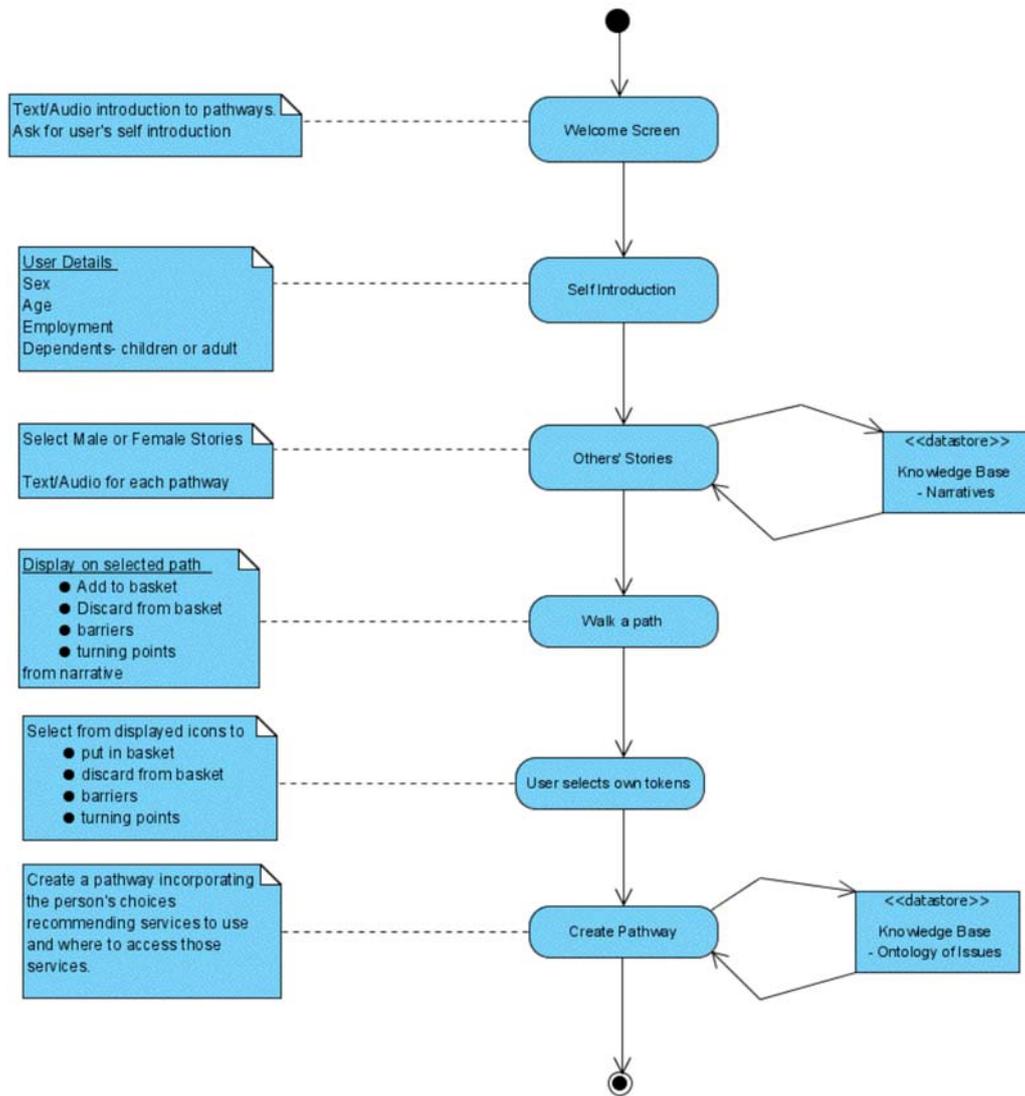The interface will be designed as detailed in Figure 4 below:

Figure 4: Activity diagram for Pathway Creation (De Vries, 2006 in McIntyre-Mills et al 2006 :297)

These patterns are drawn from analysing the stories of women and men. Wellbeing can be seen as a function of the following, as detailed in Figure 5:
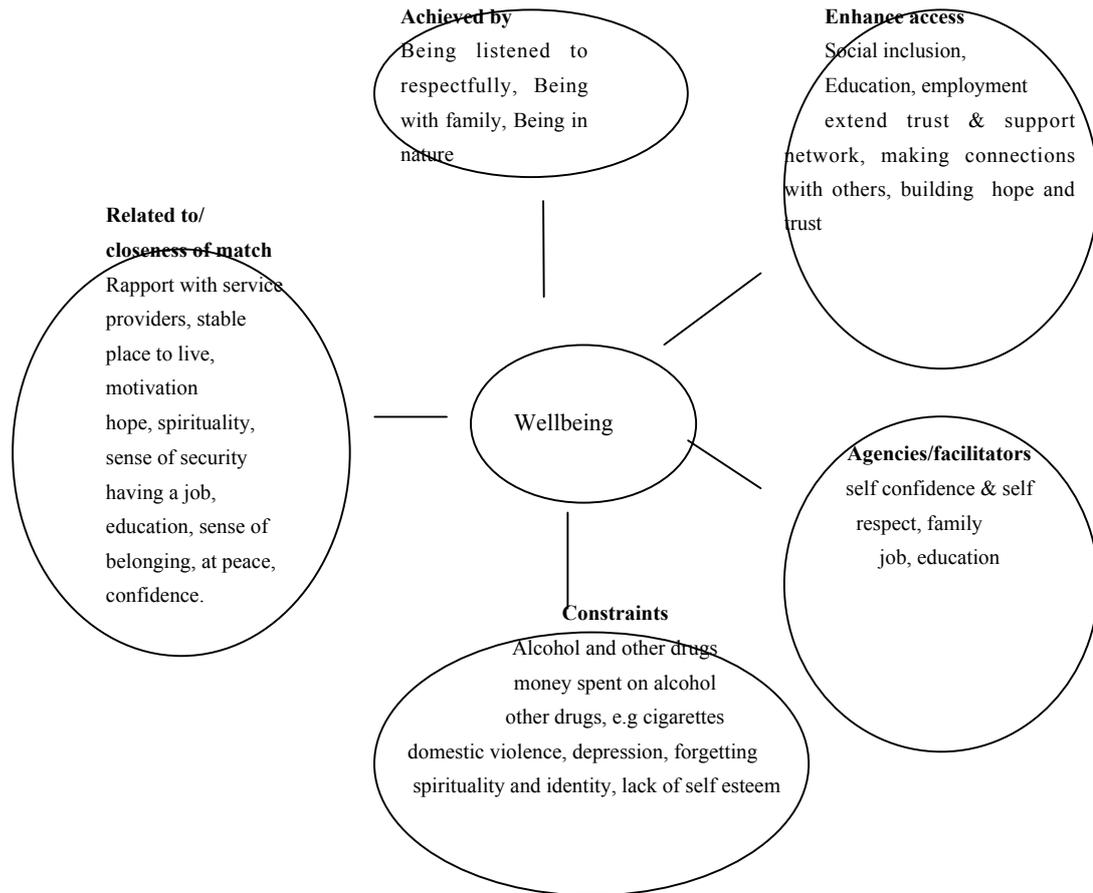
Figure 5: Map for the proforma

Combinations of 5 axial factors appear important at this stage of the analysis:

- **Home safety** (and being free of violence)
- **Health** (physical and mental health – appearance , energy)
- **Purpose** (Formal Employment or preparation for employment /profession employment/CDEP / training /education)
- **Connection/belonging** (people and place), volunteering, community leadership and cultural spirituality
- **Self respect and confidence**, feeling good about oneself which is linked with being able to access services, work, study, maintain a stable home for children.

The inference from the analysis of the data so far is that by providing a combination of safe housing, meeting basic physical needs then accessing education and employment become possible.

To overcome barriers in accessing services, it is vital that service providers in mainstream and specific services are welcoming to ensure that the confidence of service users is built. The role played by holistic or (one –stop shop outreach) is important in this context as it enables rapport and relationships to be formed. Also a quickly negotiated pathway to ensure that the above mentioned axial themes are addressed effectively and efficiently would enable better outcomes.

Once a preliminary analysis of the data was undertaken a series of iterative workshops were held to explore the map of factors with the participants using the following answer sheet:

1. **How does the bubble help other aspects of life?**
2. **How does the bubble hinder other aspects of life?**
3. **How important is the bubble ? (use scale like one below)**

   not at all   a bit   doesn't matter   quite important very important

4. **If I solve this problem or have this asset first, does it make solving other problems easier?**
5. **Do these things always happen together? Or one after another?**
6. **How do I achieve it?**
7. **How do I avoid it?**
8. **Where can I get help for it?**
9. **Who can I help and how, if they need this or have this problem?**
10. **Is it sometimes good and sometimes bad – in what situations?**
11. **Are there other names/terms for the same thing?**
12. **What can stop me from (or make it really hard) getting/achieving it?**
13. **Are there conditions I have to meet to achieve/get it? (Such as age, sex, children, income, employment etc)**
14. **Is this a smaller or larger part of another issue? (like Physical Health is parent of diabetes)**
15. **If one thing happens, does another thing usually follow? Both good and bad.**

   TASK
   Please look at the drawing of the factors that influence wellbeing
   Please write under the **headings and draw your own pathways**
   Add issues/needs/solutions as you discuss and think about things.
   You can work as a group or alone – people can choose.
   Add as many more questions/descriptions as they/you want.
   Add balloons/ bubbles as well, if you want to.

Figure 6: Second Proforma for Data Acquisition (De Vries 2006)

It is clear that question 3 , asking for linear response is a reflection of the construction made by De Vries, but all the informants considered each of the factors equally important. But when informants were asked to self select the most important factors in their lives they clustered around health, housing, employment, education , trust and good relationships. All these factors are systemically linked. It was vital for the informants to stress this systemic weblike approach and to remind the informatics engineer that core factors are interlinked to provide the systemic base for wellbeing.
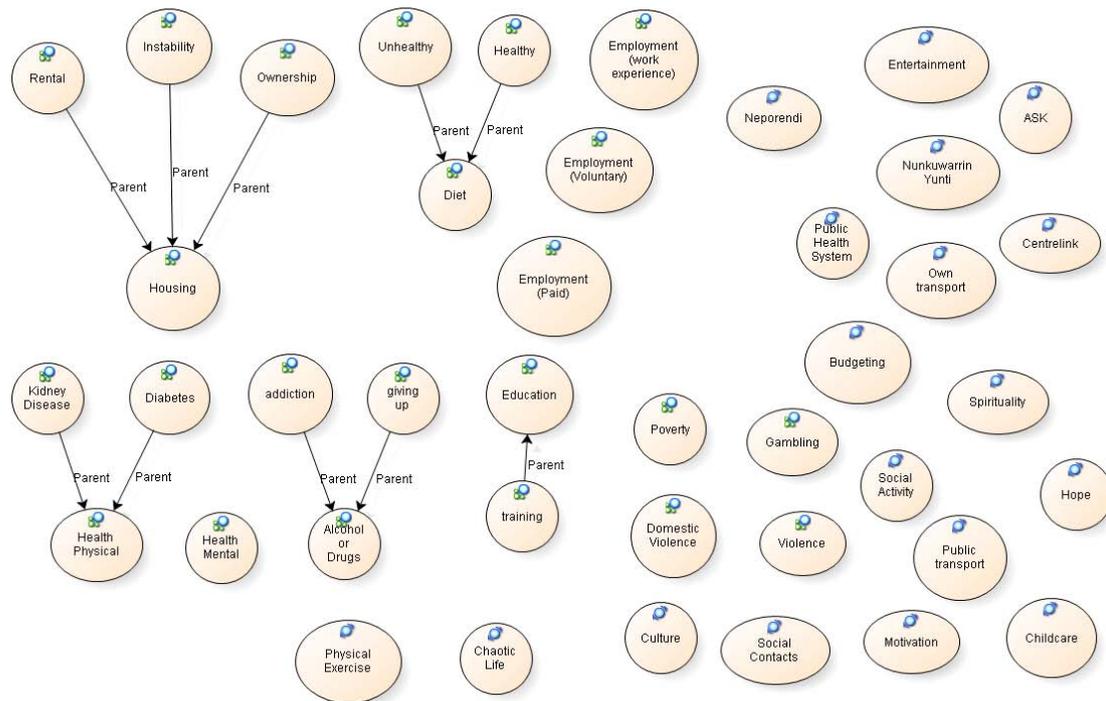
Outcomes for the service users

The first Nvivo maps were developed iteratively for discussion with the male and female service users and Aboriginal service providers who formed part of the reference group and later with a wider group of non Aboriginal commentators at a workshop hosted by McIntyre and Morgan with co-researchers and corrections were made, for example:

- the 'ASK' factor refers to an employment agency and thus needs to be located next to the employment agency bubble. It is a synonym.
- Gambling is an addiction and thus needs to be placed close to the bubble named 'addiction'.
- The factors covering employment 'paid' and 'unpaid' and work experience need to be nearer or linked as parent bubbles with ASK , employment agencies , Neporendi
- Having employment and budgeting are also closely connected - too far apart in the NVivo map.

The aim is to find the shortest pathway approach to achieving wellbeing outcomes. But the pathways are based on the perceived lived experiences of the service users as to what constitutes a successful , integrated outcomes.

Pattern recognition and meaning making

Context is all important to the design as the perceptions expressed are based on specific experiences which will be developed into conditional scenarios to guide action.[11]

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[11] These suggestions are however, only meant to guide decisions made by service users together with a service provider , who could sit side by side and use the computer program to help identify which narratives resonate with their own experiences and explore the choices made by others and then to consider their own possible responses that could be added to the program. As each service user works with the program they will add items that they perceive to be valuable for the 'in baskets', items that need to be discarded. They will identify the

The computer program will be updated as different users contribute and this will be achieved by positioning the factors (that the service users perceive to be important) as synonyms in response to contextual scenarios. We will test the program to establish if it enables :
- Greater self knowledge and learning from others
- Better decisions, based on pattern recognition that could also help to make sense of the trauma and losses they have experienced
- Participating in an active, constructive way in designing alternatives.

Being 'shamed' by service providers was discussed as being one of the greatest barriers (on this see Atkinson,2002) to healing as it creates a sense of victim hood and leads to mistrust. See the diagram below which was drawn whilst telling a narrative about how usersperceived relationships with service providers.[12] In the diagram below the story teller explained that she was made to " feel small" and to " feel shamed" in the way the service providers communicated, because they do not communicate respectfully in the way that women communicate in groups where they sit in a circle and each person's contribution is listened to carefully and valued. If the dynamics make you feel disrespected, it undermines opportunities to build connections and pathways to wellbeing.

The data show multiple non linear relationships across:

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turning points they have experienced for the better and the worse and the barriers (De Crespigny et al 2002) they have experienced.

[12] The legacy of racism, loss of land and generations of social exclusion provide the lens through which the service users view their life chances and evaluate the services. Poverty and a lack of resources, combined with a lack of self respect associated with violence, abuse and alcohol misuse are part of the systemically linked web of problems. This is why a sociocybernetics approach is needed to explore the complex, recursive interrelationships so that a web of interventions can be provided.

- Domestic violence, a lack of confidence , social exclusion and the use of alcohol and other drugs.
- Lack of confidence (and prior experiences as children) leads to women accepting DV or putting up with it for the sake of their own children.
- The value of women leaving a violent home base as a first step towards achieving wellbeing
- Socio-economic disadvantage causes discrimination in accessing rental housing.
- A sense of security provided by a home base from which to get a job, training or education.
- A safe home, a sense of connection with a supportive wider community supports stable relationships.

OUTCOMES FOR THE SERVICE PROVIDERS

- More effective matches of services to perceived need.
- Better able to combine services to meet complex needs.
- This has implications for governance – people at the receiving end of the decision can test out ideas and so this makes the rhetoric of subsidiarity a reality – good for democracy and for science.
- It provides a generic tool for governance and has implications for e-governance.

WORKING BOUNDARIES USING SYSTEMIC PRAXIS

Organisations need to strive towards the ideal of promoting the public good, whilst mindful of the consequences of their choices in day to day operations.

Expanded pragmatism stresses the importance of considering the consequences for all those who are to be at the receiving end of a decision. In this sense it is very different from the narrow pragmatism of new public management approaches critiqued (see Minogue et al 1998) for their undermining of the public ideal in the bid to become competitive and to achieve outcomes measured by performance, based on consequences, not ideal rules.

The Design of Inquiring Systems (West Churchman 1971, McIntyre-Mills et al 2006a) enables an expanded form of pragmatism that is built upon logic, empiricism, idealism and the dialectic(exploring thesis, antithesis and creating a synthesis).

Habermas (1982) discusses the importance of exploring one argument, another argument and then creating synthesis on the basis of the dialectic or feedback loops. The potential outcomes and outputs are to inform decision making by providing guided user pathways and to:

- Provide a model of knowledge management that places Indigenous knowledge at the forefront and that could be applied in a range of human service settings.
- Enhance workforce capacity building and problem solving to span organizations and based on working with, rather than within knowledge areas (see Van Gigch, 2002).
- Demonstrate systemic collaboration.
- Create management links across areas of knowledge relevant to achieving better outcomes.
- Identify the extent to which collaborations can meet current needs.

- Map expressed need, normative need and perceived need, the referral traffic and the refusals in a dynamic evaluation and management model.
- Share the findings and its relevance to policy through workshops with a range of stakeholders.

The resulting 'flow-on' effects of adopting an holistic and systemic approach (Roche & McDonald, 2001) for promoting intergenerational health and well-being will: a) achieve better role modeling across men and women of all age groups and b) lead to greater control over life chances.

In this research dialectical considerations are assisted by drawing on and adapting Senge's (1990,1999) work on typical patterns of feedback to inform a) ways of human knowing and b) to assist in understanding patterns of complex, wicked problems that need to be addressed by means of governance policy that takes into account **perceived values** that shape decisions and outcomes:

1. 'Reinforcing' policy loop, for example: a) Cutting the time allowed for sole parents to stay at home to look after children leads to greater use of the payment for having children as a means to address the perceived problem of leaving children and going to work. Children are thought to be at risk and women can have a range of reasons such as lack of confidence – for not leaving their domestic lives. b) Cutting funding for public subsidies for dentistry leads to increased use of pain relief and reinforces the likelihood that the poorest will have little confidence to seek employment and educational opportunities, because of lack of confidence caused by a legacy of social exclusion and racism that results in little confidence to access private rental markets, for fear of " being shamed". The sense of being a victim is a cause and an effect of social exclusion and needs to be addressed through enabling people to understand why they feel the way they do and to consider how it is impacting on their lives in a negative way. A women who could not face the officials at the Court when she went to fill out a form to pay her fine, went away , knowing that she would be in even more trouble. But she said that she just could not face being humiliated because she felt powerless and unable to communicate with the officials.
2. 'Balancing loop', for example: increasing funding to service delivers will be balanced out by unfriendly staff.
3. 'Fixes that backfire', for example: cutting costs to welfare by reducing spending on welfare leads to higher spending on crime control and an increased sense of social exclusion and alienation.
4. 'Limits to growth', for example the more emphasis on controlling expenditure the higher the savings , then a leveling off of the benefits of cutting service benefits.
5. 'Shifting the burden', for example cutting the costs in one department by shifting the costs elsewhere. Less funds for dentistry leads to greater use of alcohol and other drugs.
6. 'Tragedy of the commons', for example: increasing the pressure on organizations to be more productive and efficient and abandoning idealism of the public good leads to all the organizations becoming competitive and less co-operative, which impacts on the effectiveness of services and the common good(see Palumbo and Scott in du Gay 2005).
7. 'Accidental adversaries', for example: two welfare organizations in competition for scarce funding leads to less co-operation and emphasis on the wellbeing of the service users.

CONCLUSION: SYSTEMIC POLICY INFORMED THROUGH ITERATIVE FEEDBACK USING NETWORKED AND UN NETWORKED COMMUNICATION

The findings to date:
- **Demonstrate the importance of linking service users and providers** and the role that ongoing communication can play in shaping policy. As Aristotle argued, being involved in dialogue on policy matters and applying the dialectical process in one's community is one of the ways to ensure a fulfilling life (which he called eudaimonia, on this see Nicomachean Ethics (Irwin, 1985) and Christakis and Bausch 2006 on 'demosophia', or the 'wisdom of the people' for providing 'the requisite variety' to test out ideas on how to address complex problems).
- **Support the idea that wellbeing is 'what is valued'** and necessarily includes basic needs of safety, housing, employment/ education or training. Empowering **Indigenous organisations** to achieve wellbeing for Indigenous people is a step in this direction (Rowse 2003), but that these steps are insufficient to achieve wellbeing for self determination, unless Indigenous people have political and economic opportunities that result in their becoming citizens with rights respected within the wider community. **Cultural inclusion needs to be supported by democratic structures and processes** (see Elias and Lichterman 2003).

New approaches to communication within and across organizations to support good governance requires working with many variables and considering not merely linear cause and effect but instead considering communication feedback loops(See Christakis and Bausch 2006, McIntyre-Mills et al 2006a,b and Van Gigch with McIntyre Mills 2006).

Compartmentalised thinking and practice	Systemic Thinking and Practice
• Simple , categories of options	• Complex , overlapping domains
• Discrete variables	• Working with social, cultural, political, economic and environmental variables
• Linear relations cause and effect – based on diagnosis	• Multiple feedback loops guide selection of options
• Space and time are separate and fixed	• Space and time are relative and relational
• Experts understand the problem	• Ability to appreciate the different ways in which problems are constructed
• Analyze information in a **systematic, linear** manner • Decisions framed by experts	• Generate systemic solutions though ongoing testing • Dialectical consideration of one argument, another and achieving synthesis • Decisions informed by the requisite variety of service users

By enabling and analyzing the patterns and finding what the factors are that support change and the barriers that prevent change the service users could be able to think

about how closely their own lives match the different domains and what they can do to make changes. The research on knowledge management processes could:

- Enable policy making and data management in contexts where large amounts of data need to be held in mind to inform decisions.
- Establish cross boundary work – both conceptual and spatial, between service users and service providers, which is greatly needed for regional and trans national policy making (McIntyre, 2005, McIntyre-Mills 2006c).
- Give insights into more inclusive approaches to policy design (McIntyre-Mills 2003, 2006) and provide lessons for the way we think about or frame wellbeing, policy making and governance (Colebatch 2006, McIntyre-Mills et al 2007 in press).
- Address the practicalities of taking small scale democratic deliberations and scaling up the process using an adapted form of communities of practice (Wenger 1998) to enable multilevel governance across cultural boundaries (on this see Bausch 2006, Christakis and Bausch 2006; Fukuyama 2006; Langford and Edwards 2002; McIntyre-Mills et al 2006 a, Van Gigch and McIntyre-Mills 2006; Pierre and Peters 2000: 67,207-209, Peters, 2001)[13].

Definitions that are owned and that reflect the perceived needs have "radiance" (Churchman, 1971, 1979, 1982) and power to transform. Radiance is the difference between ideas that flow from a sense of identity (and shared meaning) to ideas that are imposed (McIntyre-Mills 2003 a, b). "Human systems are different" , according to Vickers (1983) and instead of matter, we have social structure and processes that need to be harmonized through respectful communication that can create meaning and resonance that builds trust.

To sum up our findings to date: wellbeing is dynamic and inter-relational. The matching process is thus all important to public policy making processes and to governance to ensure that it is carried out effectively (Peters 2001). This research does not vulgarize (See Bateson in Guddemi 2006: 72) the notion of wellbeing as any fixed set of variables[14], it is a state of mind, a relational value within a specific time and place. Wellbeing is a valuation of multidimensional variables (including social, cultural, political, economic and environmental variables).   If we accept following new physics principles that space and time are not discrete entities, why should wellbeing be captured and categorized by means of outdated sociological thinking?

Those who work in terms of categories of cause and effect can argue as does Encarnacion (2006) that civil society needs to be reconsidered, because a state can be undermined by civil society. This misses the point. Diversity and freedom need to be

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[13] Dahl's principles of democratic process (1989 in Kjaer 2004), can be critiqued , because voting is not enough . People need to be able to participate in the deliberations. Web democracy can help, such as engaging young people in drafting policy that spans the boundaries of the nation state , because poverty and pollution are not bounded by the nation state (See Kjaer for a discussion of Danish school children engaging in an exercise to develop a constitution for the European Union).

[14] Wellbeing' like power is a concept based on perceptions, emotions and values. Furthermore it is relational and a combination of factors support wellbeing. As Aleksander (2005) outlines 5 axioms for consciousness, but although he tries to avoid blind spots he argues that consciousness is about awareness based on attention and perception, planning ahead and emotion. This is a very Western and middle class notion in so far as ability to plan ahead can be prevented by living from hand to mouth. The culture of survival outlined by Helman(1990) stresses that this difference is a result of life chances. Wellbeing plays out in the life chances of people, those who can show agency despite the limitations they face are able to achieve a life in balance. Power is defined in terms of many dimensions , that could be expanded to include social, cultural, political, economic and environmental factors but at least he stressed that they include " fear, hate, love, threats of punishment, and avoidance of pain" (see Bateson in Guddemi 2006).

encouraged to the extent that they are not undermined. Yes, the state is needed to provide the context for democracy to flourish, but the state also needs democracy to keep it democratic. The mutual testing is the sine qua non of both democracy and new science. The 'iron rule of oligarchy' (Michels 1915) should not be forgotten. The argument being that democratic organizations become increasingly structured, hierarchical and bureaucratic and the leaders control access to information and resources and are consequently more powerful than those at the bottom of the hierarchy as a result. The processes for dealing with complex situations are streamlined in democracies and the less powerful voices are silenced which undermines social inclusion opportunities for wellbeing.

Michels argues that he did not want to try to solve the problem of democracy because it was unsolvable. He described it as a law: "Democracy leads to oligarchy, and necessarily contains an oligarchical nucleus"(Michel's 1915 translated by E. and C. Paul 2001: 6).This is a problematic argument in that it is assumed that social systems are governed by laws, rather than understood in terms of probabilities.

Nevertheless the comment about the potential for rigidity in bureaucracies and the potential of states to represent the interests of the powerful is well taken. Secondly his argument about the ability of organizations to respond to complexity is also well taken. Fortunately with new forms of technology and with the development of socio-cybernetics it is possible to reconstruct the way in which organizations operate so that they do not undermine democratic principles. A potential way forward is by enabling more accountable communication on an ongoing basis, in order to make the Third Way (Giddens 1998) less market oriented and more participatory. Our research does not strive to undermine bureaucracy per se, but to enable the public sector to become more responsive and thus live up to the ideal of serving the public good.

> "Complexity management is only possible if the decision makers reflect the complexity of the issues they are dealing with. Working in teams and providing space and time for individual contemplation can be equally important for the testing out of ideas by those who have experience and those who are to be affected by the decisions (irrespective of age, gender, culture, education, income or other status indicators such as level of education)." (McIntyre-Mills in van Gigch and McIntyre-Mills 2006:16).

To sum up, as we draw conclusions from this stage of the research on modeling perceptions of wellbeing from the point of view of service users and providers, it is clear that we are able to use mapping only as **an aid to decision making in context**, not as a means to represent reality. As a result of documenting their perceptions and analyzing them we were able to identify core building blocks or factors that need to be considered contextually and 'added to' in iterative dialogue.

The narratives and pictures (both abstract and concrete representations) were used to develop the meaningful metaphors with which people could identify, namely of weaving together strands of experience into baskets that could be used to gather learnings and to discard the problem areas from life . This process focuses on taking personal responsibility, whilst mindful that their life chances have been shaped by their social, economic and environmental history (as reflected in their experiences). The research process aims to enable a) social inclusion (building on Carson et al 2007: 113, Bourdieu 1986 and a critical reading of Putnam 1995) and b) connecting with others who are from the same background (bonding), c) making connections

with those who are different (bridging) and d) creating links horizontally and vertically to bring about change strategically.

The value of matching is enmeshed in the process of engaging those who have lived experience in social life. The engagement is in itself important for democracy, personal and public accountability and for wellbeing. The mapping process is **not aimed at fixed prediction or control**, it is about drawing on the wisdom and tacit knowledge of people who are at the receiving end of policy and ensuring that they have a say in shaping the policy and management directions for the future at the local, regional and global levels
(see McIntyre-Mills et al 2006).

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