

STAR, a qualitative evaluation process of the Healthy Cities

Raul Guimarães

Department of Geography
São Paulo State University – UNESP
Presidente Prudente

ABSTRACT *Based on an analysis of the European experience, the main purpose of this article is to show qualitative indicators to analyse Healthy Cities' social capital in terms of improvements to social networks. The parameters for this evaluation take into account the level of integration of the community partners, health services and the local government in a Healthy City. This new evaluation methodology contributes to the understanding of the similarities and the differences in the processes of the construction and reconstruction of social networks in different healthy cities.*

KEYWORDS *Geography of health, healthy urban planning, Healthy City, qualitative evaluation process*

1. Introduction

Based on an analysis of the European experience, I have developed a new evaluation methodology entitled STAR – Strategic Tools for Adjustment and Revision. The main purpose of this new methodology is to develop qualitative indicators to analyze Healthy Cities' social capital in terms of improvements to social networks. The parameters for this evaluation take into account the level of integration of the community partners, health services and the local government in a Healthy City.

Healthy Cities in Europe have been implemented according to a number of steps in an action planning cycle, which includes agreeing on a vision, generating ideas and plans for action, enabling action, monitoring and evaluation and assessing needs and assets (WHO: 2001). The action planning cycle considers how people develop the competencies and

abilities needed to implement the Healthy Cities approach, which advocates strengthening community participation, intersectoral approaches, complementary and interdependent joint actions for better public services and sustainability.

Healthy Cities projects can use STAR to refine their understanding of their local policy context in order to make decisions to improve policies through small adjustments and revisions. STAR is a *strategic* methodology because it is available whenever it is needed. It integrates some very simple and inexpensive tools – social network analysis and participatory diagramming – in order to help network members to carry out their own evaluation during the action planning process.

STAR has been tested in Liverpool Healthy City (UK) and it is still being developed. Currently I am studying the adequacy of this methodology for the evaluation of Brazilian Healthy Cities.

2. Methods

Considering action planning as a learning process, local experience becomes a broad structure and builds stronger links between people. In general, a ‘social network’ is a structure in which each agent (member of the network) keeps a set of connections with other agents, and occupies a position in the network with specific characteristics. For example, some actors may have a central role in leading the network or bringing network members together. Ideally, a social network should enable its members to integrate public policies and to promote a healthier city. Therefore, the more people take part in the action planning, the more they should be able to increase their competencies.

STAR analyzes the nature and structure of the participation of local agents in terms of their basic competencies and ability levels (see 1). As a first step, stakeholders of a network discuss the STAR methodology and identify key informants who will participate in the evaluation. The informants complete a questionnaire which identifies their most important relationships with other members of the network. The informants are also asked to characterize the importance of these network partners in one word.

The results of the questionnaire are then represented numerically in a “connectivity” matrix, in which the number of connections between

network members is calculated. This information is used to visually map out the relationships between partners, as well as their importance to the overall network. The results demonstrate the extent to which the network is dependent on one or more central partners for its existence (see Table 1, Competences 1 and 2). The one word characterizations of the relationships are superimposed on this visual map, yielding a map of values and concepts.

The informants are brought together to discuss the results. Partners are allowed to alter the diagram through a process called “participatory diagramming”, which involves value judgements and subjective aspects. In the context of open and divergent dialogue (Abma, 2001), the objective is to start from a situation of tension and awkwardness and to recover and build a critical reflection. Once consensus is reached, the evaluator analyzes the results and constructs a STAR diagram (Fig. 1) based on the level of competencies built (Table 1).

The STAR diagram highlights the weaknesses and strengths of competencies and abilities learned through the action planning process. This can be helpful when the network members need to make decisions on what must be prioritized in order to boost local experience. For example, in the hypothetical case below (Fig. 1), the level of empowerment ability is higher than networking and shared values, language and knowledge. By analyzing this STAR diagram, the need for

Table 1 – Healthy Cities Project – Competencies and abilities developed across local action planning process

Competence	Low ability	Medium ability	High ability
1. Networking Level of connectivity between individuals to exchange information, ideas and experiences	Hierarchal model One agent has high degree of centrality in the network	Archipelago model There are a few central nodes. If they are removed, the network quickly fragments into unconnected sub networks	Horizontal model Connectivity among the network participants is quite high and this makes it difficult to identify central agents
2. Empowerment Level of control over local experience	Delegated control Local partners take part in the decision-making process, but the real control over operations is centralized	Entrusted control Directing power is shared between local government and its partners	Interdependent control There is pluralistic local governance, which becomes increasingly founded upon trust between the local partners
3. Shared values, language and knowledge Level of vocabulary, concepts and principles from Healthy Cities Project available for everyone to express common ideas and feelings	Monologue People are able to analyze and explain the local experience but do not apply vocabulary, concepts and principles from Healthy Cities Project	Divergence dialogue People have Healthy Cities’ vocabulary, concepts and principles as reference but their analysis and explanation go in a different direction	Convergence dialogue People take the vocabulary, concepts and principles from Healthy Cities Project to analyze and explain the local experience

Using ideas from Brager and Specht (1973); Burns, Hambleton and Hoggett (1994); Davidson (1998) and Rootman *et al.* (2001)

adjustments and future actions to increase local capacity in these areas can easily be seen. The evaluation process allows a discussion on what needs to be changed across the local action planning cycle.

3. The Liverpool (UK) pilot study

As part of the development of the methodology, STAR was applied in Liverpool (UK) between November 2001 and February 2002. The results of the pilot study enabled the consistency of the evaluation model to be analyzed, as shown below.

Many reasons contributed to the choice of Liverpool for the pilot study. In 1987, Liverpool was part of the group that established the Healthy Cities European network. A year later, this city hosted the first International Healthy Cities Conference, the event that brought the Healthy City movement to the attention of the community throughout the United Kingdom and other European countries. In addition, Liverpool can claim ownership of the first City Health Plan, a document published in 1996 and adopted as a model for other ongoing Healthy City experiences across European countries.

The aim of the Liverpool City Health Plan (1996) was to reorientate the services – structured according to health/medical specializations – towards both an intersectorial and a preventive conception. To achieve this, the plan proposed the establishment of technical groups to support this reorientation. These groups should perform diagnostic studies of the community health situation and disseminate the debate by establishing new channels of participation involving people with the strategic planning of actions.

From the first draft of the plan to the final document, the Healthy City Program team coordinated several meetings, audits and consultations with the

local community. These activities enabled a deeper understanding of the common problems and the possible solutions to each of them to be established.

This consultation process resulted in the reorganization of the administrative structure that aimed at a better liaison between local government bodies and the different levels of decision-making regarding the city health policy, from the local level to the highest level of government.

As part of its commitment to urban renewal and the regeneration of the city, the Liverpool City Council has been working with a number of local partnerships since 1999. The document on which this new local public policy is based is called “Liverpool First: Community Plan” (Liverpool, 1999). The City Health Plan has been an important reference for the preparation of this document and is considered to be a part of it.

In addition, the Healthy City Project team has worked closely with the Merseyside Health Action Zone Implementation Plan (Merseyside Health Action Zone, 1999) and it has developed actions in several local area partnerships, under European Objective One funding.

The “North Liverpool Health and Inclusion Project” is an example of a project currently being run in an area managed by the community - the North Liverpool Partnership. The project involves about 30 local partners, structured in a network, who invest in initiatives to fight health inequalities. The project also contains a strategy for the implementation of the objectives as laid down in the Liverpool City Health Plan for the Northern area of the city.

STAR was used in this project and its applicability was shown by the evaluation of the social capital accumulated by the social network that supports the actions of the Healthy City Program in the North Liverpool Partnership area.

3.1. Results

At an initial meeting with the coordination team of Liverpool Healthy City and the North Liverpool Health and Inclusion Project, we looked for the support and the agreement of the local partners for the implementation of the pilot study. The matrix of competencies and abilities of STAR were introduced and debated, and queries regarding the progress of the research stages were clarified. The local partners were assigned the tasks of choosing key-informants and detailing the timetable activities of the evaluator. Based on the answers given in the questionnaire by the 18 key-informants, a matrix of

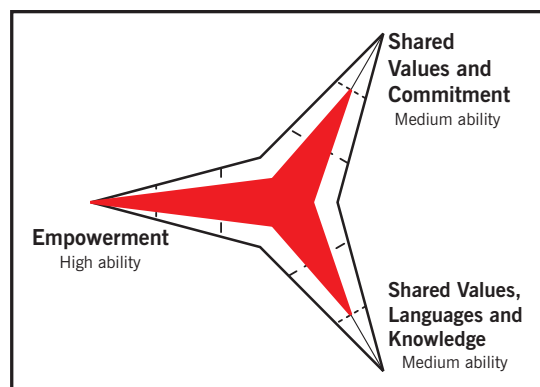


Figure 1 – STAR diagram

fundamental relationships was organized among the local partners in the social network that supports the North Liverpool Health and Inclusion Project. The list of the 27 partners mentioned was repeated twice - once in the columns and once in the rows. Each time key-informants related one partner with another, a point was attributed to this link. Therefore, it was possible to see in the matrix the number of times the same pair of partners was related by different key-informants and the identity of the latter was kept (Table 2).

From the matrix, the analysis of the network was performed and priority was given to the calculation of the number of connections of each partner and the calculation of the centrality of each of them. The study made it possible to identify the existing components in the local network, the neighborhood relationships among them and the existence or lack there of barriers between different agents.

Among the partners listed by the informants, the coordination of the North Liverpool Health and Inclusion Project was the one with the largest number of choices, with 17 connections. Charac-

terized as the *structural center* of the local network and with a degree of centrality of 0.65 on a scale of 0-1, this partner is the pivot of the network. In other words, if it did not exist, the network would no longer exist. At least six of the network partners are aggregated in pairs directly linked to this center and they would be totally isolated from other relationships if the coordination did not exist (*hangers*).

On the other hand, the local network which supports the project shows a high level of *inclusiveness* (a degree of 0.8 on a scale of 0-1), calculated using the relationship between the number of connected and isolated points in the network. This is a very positive factor. The objective of the project is to strengthen the relationships among the partners. The large majority already have some kind of connection, albeit an indirect one.

Another aspect that should be highlighted is the existence of some points with a lower degree, but they fulfill an important strategic role, connecting different components (*betweenness*). This is the case of Health Inclusion for Men and Government Office for the North West.

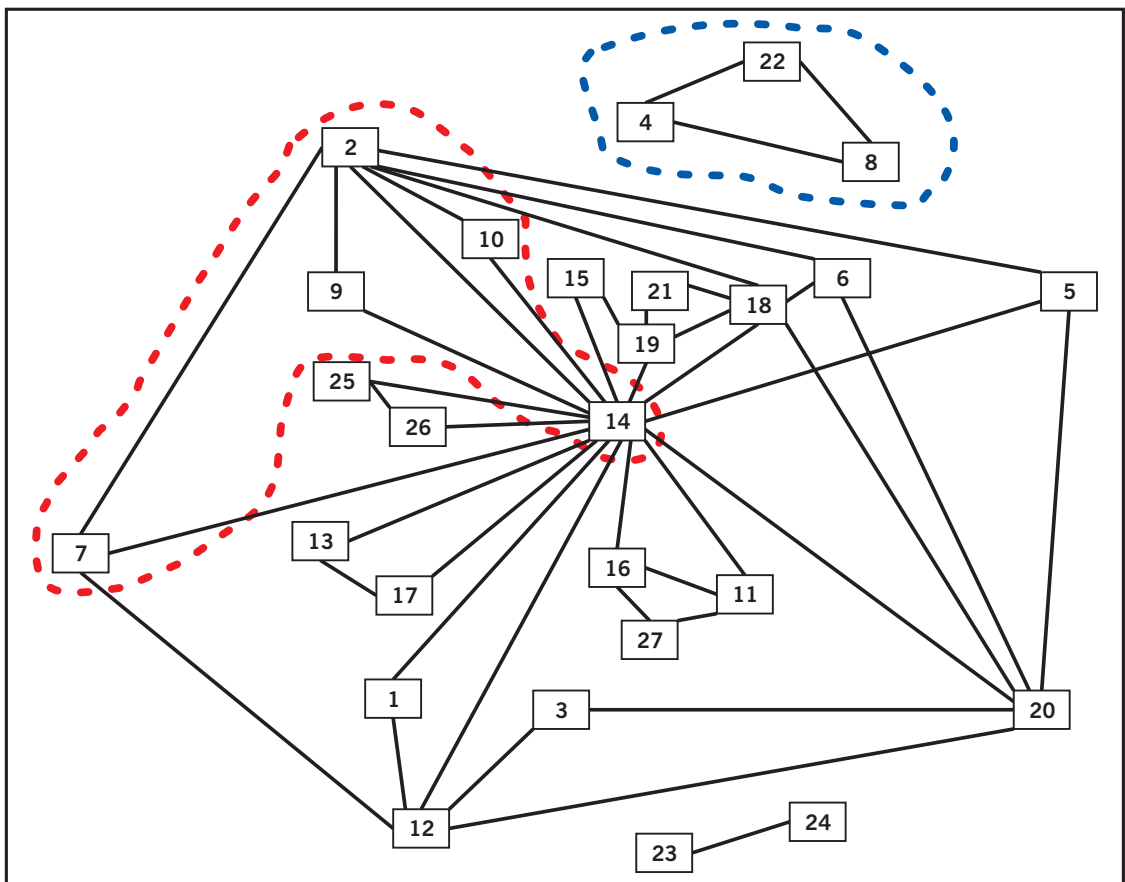


Figure 2 – STAR: North Liverpool Partnership Sociogram – Fundamental links between social actors

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	total	connec- tions	Degree
1	-											1		2														3	2	0.08
2		-			1	1	1		1	1				4				1										10	7	0.27
3			-									1								2								3	2	0.08
4				-				1														1						2	2	0.08
5		1			-									2						1								4	3	0.12
6		1				-												1		1								3	3	0.12
7		1					-					1		2														4	3	0.12
8				1				-														1						2	2	0.08
9		1							-					2														3	2	0.08
10		1								-				1														2	2	0.08
11											-			1		2											1	4	3	0.12
12	1		1				1					-		2						1								6	5	0.2
13													-	1			1											2	2	0.08
14	2	4			2		2		2	1	1	2	1	-	1	1	1	1	2	1					1	1		26	17	0.65
15														1	-				1									2	2	0.08
16											2			1		-										1		4	3	0.12
17													1	1			-											2	2	0.08
18		1				1								1				-	2	1	1							7	6	0.23
19														2	1			2	-		1							6	4	0.15
20			2		1	1						1		1				1		-								7	6	0.23
21																		1	1		-							2	2	0.08
22				1				1																				2	2	0.08
23																								1				1	1	0.04
24																							1					1	1	0.04
25														1												1		2	2	0.08
26														1											1			2	2	0.08
27											1					1												2	2	0.08
total	3	10	3	2	4	3	4	2	3	2	4	6	2	26	2	4	2	7	6	7	2	2	1	1	2	2	2			
1. Allergy UK											10. Liverpool Health Education										19. The City Council - Social Services									
2. Breckfield + North Everton Neighbourhood Council											11. Mental health teams										20. West Everton Community Council									
3. Breckfield and Everton Community Health Advisory Group											12. Merseylive Primary Care Group										21. Young persons Resource Team									
4. Communities Against Poverty											13. Merseyside Trade Union and Community Unemployed Resource Centre										22. Knowsley Health 21									
5. Government office for the North West											14. North Liverpool Partnership Health Inclusion Project										23. Byrom Street Football Club									
6. Grant making trusts											15. Probation Services										24. Brave Heart									
7. Health Inclusion for Men											16. Rotunda College										25. Tony McGawn Centre									
8. Leisure Health Living Centre											17. The City Council - Community Development Unit										26. NHS									
9. Liverpool Health Promotion (Health Authority)											18. The City Council										27. Vauxhall Law Centre									

Table 2 – STAR: Liverpool Healthy City Project – North Liverpool Partnership – Matrix

Based on this analysis, it was possible to create the sociogram of the fundamental relationships among the local partners in the North Liverpool Health and Inclusion Project. To achieve a better visualization and to see the communication among the main aspects studied, the boundary between the components, the location of the hangers, and the isolated trees were drawn over the sociogram (Fig. 2).

The other analysis performed by the evaluator was the synonymic relationships among the words chosen by the informants to characterize the relationships among the partners in the local network. The 18 key-informants linked nine words to the network. *Partnership* and *essential* were the words most often mentioned (each word three times), followed by *support*, *vital* and *advice* (each word twice). The words *commitment*, *money*, *empathy* and *networking*, each one of them mentioned once, complete the lexicon formed by the informants.

It was not difficult to identify a synonymic and complementarity chain among these words. For example, among various possible relationships, it is possible to build a *partnership* through *commitment*

and *empathy*. *Support* or *advice* is essential to the development of participation. Many times *money* is the necessary support to consolidate *networking*.

By superimposing this lexicon on the sociogram, if we place the words in the flux of relationships among the partners, it is possible to identify new chains of meaning. For example, it was possible to understand that the semantic group of the network gravitates around the words *partnership*, *vital*, *empathy* and *commitment*. In turn, *support*, *advice* and *money* circulate among the more peripheral agents, even if considered strategic (Fig. 3).

All the results were presented at a meeting with the local partners of the North Liverpool Health and Inclusion Project. At first, it was the responsibility of the evaluator to lead the discussion, enabling the group to understand the results generated by the use of network analysis tools. It was not an easy task, because at first the data provoked some discomfort, especially for those who were isolated in the sociogram.

At the second stage, the working group was given the freedom to alter the diagram, if they

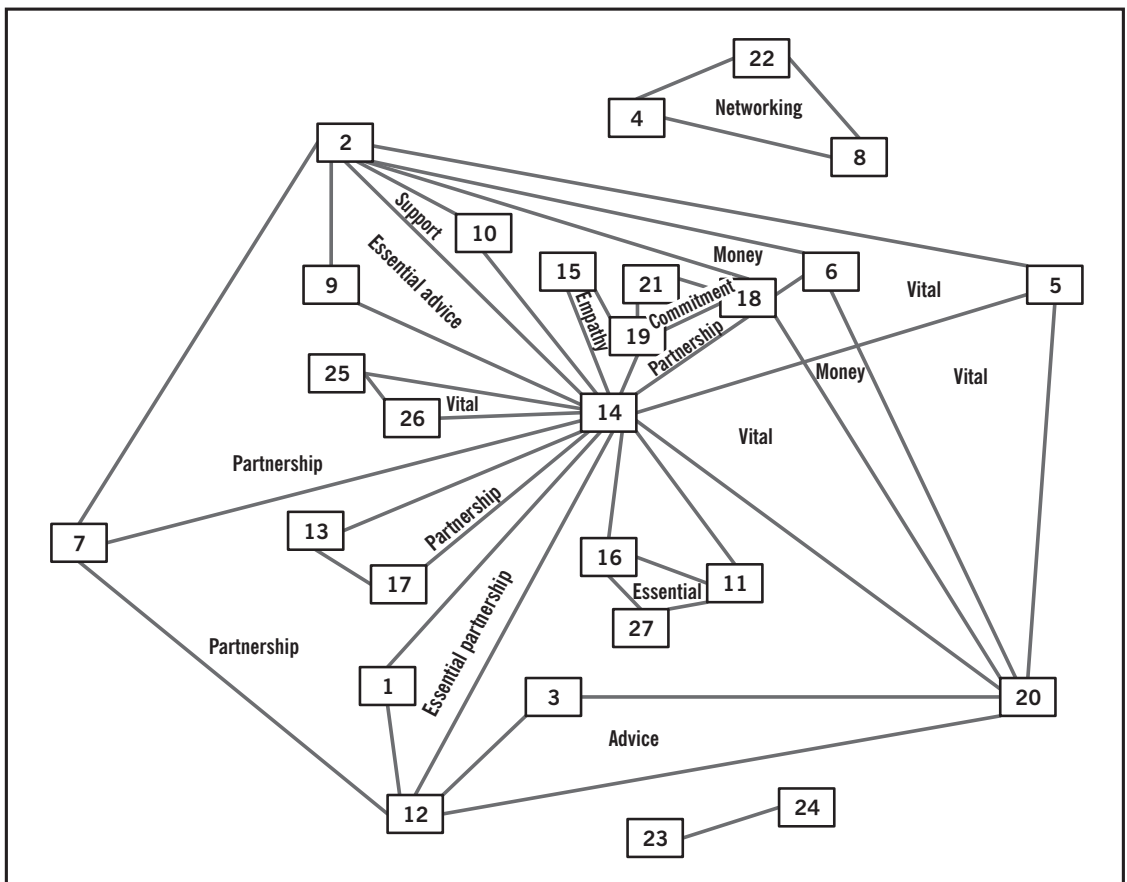


Figure 3 – STAR: North Liverpool Partnership – Sociogram – Location of the Lexicon in the Network

thought it necessary, with the aim of having a better representation of reality and altering any possible distortions of the quantitative analysis. As the group became familiar with the exercise of mapping their own relations, gradually a consensus regarding the results was agreed and the group was in total agreement with the analysis presented. Even those participants who had expressed surprise at the results found an internal consistency in the mapped relationships.

During the last part of the meeting, the working group again made use of the matrix of competencies and abilities of STAR for the final evaluation of the social network and the construction of the North Liverpool Health and Inclusion Project STAR diagram.

Regarding competence 1 (level of networking), the group came to the conclusion that local experience is at the intermediate level of ability (*archipelago model*). Although apparently the data show a strong centrality in a partner, there are at least two other partners who fulfill a strategic role and the network shows three clear components.

As for competence 2 (level of empowerment), the fact that the coordination of the North Liverpool Health and Inclusion Project plays the role of structural center is highly significant. The coordination was created with the aim of enabling the consolidation of local partnerships and the materialization of the *Healthy City Project* in the Northern area of the city. In addition, it is clearly indicated that the center of the decision-making power is not based in the City Council, but in the decision-making bodies established for the expansion of participation by the community.

However, the main partners in the project, according to the choices made by key-informants, are still the bodies of the local public administration. Among the 27 partners listed, six are services and decision-making bodies within the City Council. Only a few partners in the *voluntary* sector and community organizations were mentioned and these occurrences are far between. Because of this, the group thought that local experience is at the intermediate level of development of competence 2.

Finally, with regard to competence 3 (shared values, knowledge and language), the internal coherence of the lexicon superimposed on the sociogram makes the conceptual convergence of the local experience with the objectives of the *Healthy City Project* clear. This was supported by the choice, almost by consensus, of the coordination of the North Liverpool Health and Inclusion Project as the center of the relationships in the network.

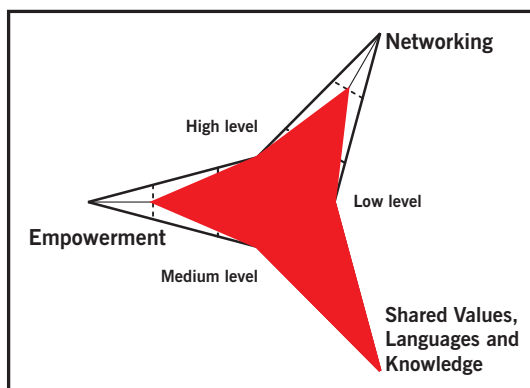


Figure 4 – North Liverpool Health and Inclusion Project STAR

Because of this, the group concluded that the social network that supports the North Liverpool Health and Inclusion Project shows a *high level of ability* of competence 3 (*convergence dialogue*). The local experience STAR is shown in Figure 4.

4. Discussion

The STAR evaluation clearly shows that investment in the development of the Healthy City Programme results in the accumulation of social capital. Based on the experience of a pilot study in Liverpool, STAR fulfilled one of the main objectives of an evaluation system: the incorporation of the results by the partners in the local network in the redefinition of their priorities and future agenda. Another important aspect was how easily all the social actors involved in the Healthy City Programmes understood the methodology and how quickly they provided answers. All the proposed steps in the STAR can be developed in a few weeks.

However, STAR is still being developed. It is obvious that there is considerable room for improvement, especially in relation to competence 3. After all, the measurement of shared values, knowledge and language is controversial in the least and subject to much debate. The pilot study did not show any strong evidence of consistency in the conclusion of the working group involved in the evaluation, with regard to this competence.

Based on the experience of the pilot study in Liverpool, one way of improving the study would be to add one more step to the process of evaluation, involving a *focus group* with those partners in the local network who were forgotten and ignored by the key-informants. In addition, it should include interviews with those partners considered strategic to the

network operation. Taking into account the data obtained using these new *strategic tools*, the evaluator would be able to identify conflicts and disputes not shown in other steps. As well as all other results, this material should be shared with those involved in the evaluation, providing better support for the evaluation of competence 3.

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