Introduction

This paper outlines the SmartCities (inter) Regional Academic Network’s (SCRN’s) three-way partnership and the organisation’s way of working i.e. methodology. In this aim the paper draws attention to how the communication needs and technical requirements of the partnership and how they are being met. In particular, how they are being met in ways seen to be smart. In setting out how the organisation is doing this, the paper goes on to configure the ‘triple-helix’ of the SmartCities (inter)regional academic network and set out the ‘step-wise’ logic of the partnership’s knowledge-base and learning platform. Having done this, attention turns towards the networking of the triple-helix by the universities and industrial sectors of what is known as the SmartCities venture. From here attention turns to the methodological question of how this knowledge-base can be used as a learning platform for the partnership to take SCRAN’s eGov development programme full-circle?
Academic networking of the SmartCities venture

Figure 1 draws attention to the academic network underpinning the SmartCity venture known as SCRAN. In this respect it identifies the network of academic institutions, their city partners and the specific role they take on within SCRAN. As can be seen, for Edinburgh Napier University the main object of attention is methodology and for Mechelen (MEMORI) the object of the exercise is to help Kortrijk customise the development of their eGov services provision. In this respect, each academic institution, university, city and industrial sector is seen to contributing something towards the knowledge base each of them needs to learn about. That which it needs to learn about as eGov service developments and also requires for the programming of their customisation, multi-channelling and user-profiling to be understood by all concerned.

SCRAN as a three-way partnership

While the aforesaid draws attention to academic institutions and their city partners, it is the three-way partnership between the Universities, Industry and Government of the network that captures the science and technology around which the ‘triple-helix’ of regional innovation turns. This offers an image of the triple-helix, SCRAN proposes to develop as the three-way partnership. As such the tri-partite nature of this

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1 This paper’s reading of the triple-helix relies heavily upon the representation of it by Etzkowitz, and Leydesdorff (2002, 2008). Unlike Etzkowitz and Leydesdorff (2002, 2008), however, this reading of the triple-helix does not rest at the level of institutions, but the communities of practice whose expertise we have take into represent the a-priori knowledge base for the model, the learning that flows from this and intellectual capital of the participants in question. In this regard the work of Amin and Cohendet (2004) reading of such models is useful for the reason, it is knowledge-based, but with an enterprise architecture that is geared towards the development of learning communities organised around cities and the intellectual capital of their regional developments. This combination of knowledge, learning and intellectual capital is a quite well established relationship, it is the link to communities of practice that is novel and which requires particular attention.
partnership goes some way to capture SCRAN’s particular take on the triple-helix and serves as a means of drawing attention to the scientific and technological basis of the strategic research funded by the EC to support the innovative and creative use of ICTs by SmartCities.

Figure 1: Academic organisation of SmartCity partner(s)

From here the organisational means needed for the said universities and their industrial sectors to use ICTs in the development of eGov services and required for governments to regulate this venture, can be explored in terms of the said partner capabilities. That is to say, explored in terms of the partnership’s ability to assemble a
methodology capable of not only customising the development of eGov services making up the SmartCities venture, but co-designing them in a way which allows the user-profiles of this constituency to be mainstreamed across the North Sea region.

What such a representation of the triple-helix model goes some way to uncover is the scientific and technical capacity of this particular academic network and what it offers the Smart Cities partnership. In particular what if offers the SmartCities partnership as a platform of ICTs supporting the development of eGov services as part of a regional innovation system.

Methodology

It also needs to be recognised the ‘novelty factor’ making the triple-helix attractive is also offers an insight into its weakness, as it does not explain how (i.e. by what method) the three-way partnerships of such collaborative ventures can be made either functional, or operational in concrete institutional settings (by either the CoP, or learning supporting the development). To achieve this, theoretical and practical guidelines on how to use the model must be developed, partly with respect to how collaboration between the three strands of the helix, i.e. universities, industry and government can support the development of SmartCities venture into eGov services as part of a regional innovation system.

In methodological terms, the challenge this poses in turn means the academic network has to organise:
• the production for knowledge internally (i.e. as the SmartCities venture);

• externally as part of a regional innovation system and

• represent SCRAN as a way of systematically ‘turning innovation inside out’ by representing the:

  • triple-helix of the SmartCities venture

  • the organisation of this venture into knowledge production as the social capital of a learning community

  • the collaboration needed for universities and industry to be smart in constructing the advantage this offers cities to meet their eGov. service development commitments

  • the consensus-building needed to support the development of ‘transnational’ standards for the development of eGov. service provision

  • the practical application of such standards in building the capacity required for and co-designing the development of eGov. services capable of being mainstreamed across the North Sea’s regional innovation system

The unique nature of this academic network rests with understanding triple-helix models are not just about offering theoretically-informed research and technical development opportunities, but a methodology for producing a knowledge of the advantage which the social capital of learning communities construct as the mainstay of such ventures.

This is because with SCRAN, research and technical development is not the network’s common denominator. For SCRAN this lies elsewhere and with the
academic nature of the network’s intellectual capital. In particular with the advantage it manages to construct as the social capital of those learning communities supporting the creation of wealth. Set within such a terms of reference, it is proposed that SCRAN’s particular task is to search out the potential advantage which the intellectual capital associated with this learning community is able to construct as a platform for wealth creation regulated by the development of electronically-enhanced services (eGov services).

Figure 2 sets out SCRAN’s attempt to overcome such methodological challenges such a process of the knowledge production raises and offers an initial representation of the triple-helix this network advances to begin meeting them. As can be seen, in semantic terms the three institutional dimensions of universities, industry and government of SCRAN’s institutional relations, are represented as the intellectual capital, wealth creation and regulation of eGov service developments and that production of knowledge which is managed by SmartCities as part of the North Sea’s regional innovation system. Set out as an actor-network matrix of such institutional relations, it is universities, industry and government which make up the columns of the matrix and their respective contributions to the generation of intellectual capital, wealth creation and regulative standards of such developments that make up the knowledge production of the left hand row.

This first institutional step into a formal representation of SCRAN’s triple-helix is then given content in terms of the analytical spaces the matrix opens up for the SmartCities venture to cut across this as part of the North Sea’s regional innovation system. This networking of SmartCities as a regional innovation system in turn
relates the universities engaged in the generation of intellectual capital, industry involved in the creation of wealth and government regulating the standards of the service development (i.e. the generation and wealth of eGov service developments) back to those actors associating with one another as a community of learners. What the wealth created by this process of knowledge production contributes by way of and through this learning community is represented in the right hand column of the matrix. This is shown in terms of the advantage which the SmartCities venture constructs as a platform of wealth creation by the development of eGov services.

All of the aforesaid is then captured in the far right-hand column in terms of what the knowledge produced by this venture contributes to the development of eGov services as part of a regional innovation system. That is to say, by way of and through the associated capital of learning community set up to regulate the customisation of eGov service developments, the wealth created from their co-design and intelligence generated about the user-profiles of the North Sea’s regional innovation system.

Revealing how the triple-helix of the SmartCities venture can be equally advantageous, however, is not so simple. This is because proving that it is socially-inclusive, equitable and justly participative, requires the academic community as a whole to accept the value of SCRAN’s proposal for the need to ‘invert’ the normal representation of its institutional relations. For with out ‘turning the relations up-side down’, it is not possible to bottom-out the knowledge-base of the capital associated with the learning communities of this venture and as the ‘wealth of intellect’ needed to start meeting the regulative standards set as a baseline requirement of the
network’s initial step-up. Those standards that in institutional terms set up the network as such a socially-inclusive, equitable, and justly participative community of practices generated from the intelligence and wealth of the SmartCities venture in eGov service development.

**Figure 2: The triple-helix of SmartCities**

Figure 3 attempts to underscore this contribution as a second-order configuration of the triple-helix for SmartCities. For this configuration shows the university as being responsible for building the capacity of the enterprise architecture and business models acting as a platform for cities to be smart in co-designing the development of eGov services with customised, multi-channelled access, targeting specific user-profiles as components of the North Sea’s regional innovations system.

Represented in this way, it is possible to specify about the duties and responsibilities of SCRAN’s triple-helix become clear. For as figure 3 shows, while the work
packaged together under the titles of: methodology, customisation, co-design and user-profiling provide the backdrop to SCRAN, it is not proposed the SmartCities venture should cover all of them as components of the North Sea’s regional innovation system. Rather it suggests SCRAN should use the triple-helix as a means to cut across them, concentrating the efforts of network’s associated communities on learning about building the capacity needed for this knowledge-base to support the co-design, monitoring and evaluation requirements of eGov service development programmes. That capacity building which is the responsibility of the universities to construct the social capital of the knowledge-base they advance as the network’s learning community.

Organised in this way, it is possible to see the knowledge-base and learning curve SCRAN’s triple helix sets for the venture. What this also illustrates is the step-wise logic of SCRAN’s particular take on the institutionalisation of the model. In particular
the fact it builds off a given knowledge-base and is creative in using the wealth of
industry underpinning the enterprise architecture and supporting the business model
of the SmartCities venture. Those architectures and models that are particularly
important for SCRAN. Important because such architectures and models provide a
platform for the associated capital of the communities which the network serves to
learn about what the co-design, customisation and multi-channelling of eGov service
programmes means. Learn about what this all means and then put this to good effect
by using such instruments as the basis to not only monitor, but evaluate the
implementation of such eGov service development programmes as part of a regional
innovation system.

Conclusions

This paper has focussed on SCRAN’s three-way partnership, its way of working i.e.
methodology and drawn attention to the communication needs and technical
requirements of the organisation. In particular those needs that require to be met for
the (inter) regional academic network to be smart in transferring knowledge about
eGov development programmes between cities. In meeting this aim, the paper has
reported on the methodological aspects of SCRAN and as a three-way partnership
supporting the SmartCities venture into eGov service development.

It has found the key factors distinguishing SCRAN from the other networks are as
follows:
Here the university engagement is not a top-down exercise in the generation of intellectual capital, creation of wealth, but the social capital of knowledge production by communities learning about how the development of eGov services can regulate this process.

As such their involvement can be said to be bottomed-out on the networking of social capital and while grounded within the third mission logic of participation, out with the normal domain of the triple-helix.

Undercutting previous representations of the helix, the object of the exercise might be said to be that of using the networking possibilities of social capital to stabilise cities by making their learning communities smarter creators of wealth and generators of the intellectual capital governing regional innovation systems.

Networked as the associated capital of web 2.0 technologies, the aim is for the learning communities of these cities to work smarter not harder. Their ambition being to create wealth terms of economic worth, but gauged in terms of what it is possible to appropriate as intellectual capital. The intellectual capital that in this instance is important because it generates the means by which it becomes possible for the knowledge produced by these learning communities to be codified. That is to say, not left as the tacit every-day knowledge-base of routine practices, but instead represented explicitly as a codification which offer sufficient critical insight to be exceptional. To be exceptional in the sense they are capable of building the capacity needed to over-ride economic interests and grant civil society the power required for cities to be smart in governing such developments as part of a regional innovation system.
• While this vision of SCRAN maybe the enterprise shared across the partnership, the collaboration underpinning such a joint venture needs to be constructed through consensus-building.

• As communications lie at the centre of the network and it is the collections of web-services that support the consensus-building which is needed for cities to work smarter, it is the constructing of these platforms which are critical.

• This is because such platforms are pivotal in making it possible for the members of networked communities to learn about what works in the development of eGov services and relay a knowledge of both the wealth creation and governance opportunities underlying this onto others as part of the ‘democratic body’ supporting the mainstreaming opportunities such programmes offer.

References:


