

Evaluating The National Digital Learning Repository (NDLR): New Models Of Communities Of Practice^{*}

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Abstract

National Digital Learning Resources (NDLR), now a mainstreamed service in Ireland, provides a national resource bank of digital materials for learning and teaching and was the first such initiative to involve all HEA-funded institutions. The authors undertook two parts of a three-phase internal evaluation of the NDLR pilot project in 2008. The evaluation focused particularly on describing and analysing the experiences of Communities of Practice established as part of the NDLR, and made recommendations for these communities in terms of their further development.

In this paper, we describe the evaluation methods and we present findings from the evaluative studies. We discuss the interaction between the communities and the repository itself, and how the evaluation pointed the way for longer term use of the repository by individuals and groups. O'Keeffe et al. (2008) have previously examined the 'formal' and 'informal' nature of NDLR Communities of Practice, and we seek to extend this research by presenting four models to describe the communities as they currently function. NDLR Communities of Practice drew on existing networks, or in some cases established new ones, to foster and stimulate the use of the national digital repository. Although these networks call on the terms of Lave and Wenger's theoretical model (Lave & Wenger 2002), they might not conform to a traditional view of Communities of Practice. The paper will briefly review Communities of Practice theory to analyse the evaluation data, and will then describe the four models of community identified. Specifically, we examine the structure of the communities, and the ways in which individuals and special interests have been accommodated in ways that might not previously have been considered part of a Communities of Practice framework.

The paper concludes with presentation of an 'evolutionary pathway' for NDLR communities, and we discuss how this will take shape as the project moves from pilot to mainstream. We offer proposals for how 'smart' communities can expand in the context of a full NDLR service.

Keywords: Communities of practice; e-learning; digital content; repository; evaluation.

* Research Article. URL: <http://ojs.aishe.org/index.php/aishe-j/article/view/39>

1. Introduction

National Digital Learning Resources (NDLR¹), funded by the Higher Education Authority (HEA), has developed a shared online resource bank of digital materials for teaching and learning for the Irish third level sector. All HEA-funded Universities and Institutes of Technology are partners in NDLR. The service began as a pilot project in 2005, and moved to become a mainstream service in January 2010. The pilot Project Plan stated:

The National Digital Learning Repository (NDLR) is a sectoral initiative, providing services and support to enable the sharing of digital learning content and teaching experience across Universities, Institutes of Technology and associated Colleges funded by the HEA.

The NDLR mission is *“to promote and support Higher Education sector staff in the collaboration, development and sharing of learning resources and associated teaching practices”* (our emphasis)

The NDLR's funding is allocated to three major areas of activity: first, institutions receive an annual allocation of funding to support local awareness-raising and development of the repository. Second, there is the development and support of hardware, software and licensing for materials placed in the repository. Third, the project in its pilot phases supported a series of subject networks, known as Communities of Practice (hereafter, CoPs). The CoPs were conceived at the beginning of the project as a means of supporting the development of the repository within subject discipline areas, and cross-institutionally. A number of institutions used their NDLR funding to support the creation of CoP Co-ordinator roles, and recruited officers to launch and develop NDLR CoPs. Institutional representatives also led training and development activities for members of their institutions who were not members of CoPs. Thirteen CoPs were formed during the pilot years of the project, and they helped to foster the creation of around 2000 resources for the repository.

Following the successful pilot phase, project evaluation was undertaken in 2008. The purposes of the evaluation were twofold: to analyse the progress of the NDLR to date, and to frame its development as a mainstream service in the future. The phases of evaluative work were:

- WP1: User evaluation and external evaluation
- WP2: Evaluation of repository service (functional and technical)
- WP3: Communities of Practice

All partners contributed to the evaluation work, with DCU, NUI Maynooth, ITT Dublin, UCC, DIT and NUI Galway leading a range of tasks within the workpackages. The evaluation results were reported in autumn 2008.

1 <http://www.ndlr.ie/>

This paper focuses on the evaluative findings in relation to the CoPs. The evaluation sought to describe and analyse the CoPs, and its outcomes will be presented here. We begin with an overview of Communities of Practice theory, and compare this with the evolution of the NDLR CoPs. We describe four developmental routes identified for CoPs, and propose that one of these offered a potentially sustainable model around which new user communities could be structured in the future. We also suggest an 'evolutionary pathway' towards sustainable community formation via local projects and inter-institutional collaborative work.

2. Communities of Practice: theoretical context

Communities of Practice theory proposes that networks of individuals will form around a common purpose, where they have a set of shared activities and knowledge. Practices are 'reified' through the actions of the community, and it develops agreed modes of operation along with shared tools including technology and language (Lave & Wenger 2002). Wenger (1998) suggests that "they [CoPs] come together, they develop, they evolve, they disperse, according to the timing, the logic, the rhythms, and the social energy of their learning". Rather than being a project team or a formal organisation, Communities of Practice do not have clear boundaries or defined periods of existence. The community comprises newcomers as well as existing members, and the 'oldtimers' who are members of longest standing. Experts help to inform and 'scaffold' other members of the community, particularly those joining it as newcomers. Participation is marked by joining in the social relations of the community, participating in the activities of the community, and "engaging with the technologies of everyday practice in that community" (Lea & Blake 2002, p.13). Seely Brown & Solomon Grey (1995) comment that "what holds them together is a common sense of purpose and a real need to know what each other knows". Van Winkelen (2003) defines a community of practice as "fundamentally a self-organising collection of volunteers. Knowledge is shared within the community based on relationships with others, rather than direct transactions".

Communities of Practice can also be formed and nurtured, where a common purpose can be articulated amongst potential participants. Oliver (2002) reflects on the potential for 'crossover' in Communities of Practice when a new technology is being adopted for new activities. He suggests that e-learning practitioners can be 'legitimate peripheral participants' in existing disciplinary Communities of Practice in order to support the adoption of new technologies for teaching, learning and research in those communities.

In the case of the NDLR, these ideas were taken further, with the object being to foster the development of the repository through subject networks from the outset. These networks would be supported directly by the NDLR, but were intentionally labelled 'Communities of Practice'. Some grew from existing networks formed around particular subject areas, but others were deliberately established in particular discipline areas to grow the repository for those subjects.

The principal technologies of NDLR CoPs were the repository and the technologies needed to make and publish digital learning resources, or 'learning objects'. There were agreed practices around the sharing of these resources, managed by NDLR licensing. However, it became

clear at the beginning of the project that CoP activities might vary, potentially focusing on networking and 'forming' as a group, before making materials for teaching in their subjects, and sharing them via the repository. The evaluation studies examined these patterns of community formation and technology use in depth. The following section describes how this work was undertaken, and from this, how the four models describing the evolution of the communities were drawn out.

3. Methodology

Evaluation of the NDLR Communities of Practice drew on combined qualitative and quantitative methods. Each of these is described here.

3.1 Survey

An evaluation survey was undertaken, using survey questions devised as part of the overall evaluative work. The survey was made available online only, using the Survey Monkey² online survey tool. The survey was available for one month, and a prize draw was run alongside the survey to encourage participation. 100 responses were received.

3.2 Focus Group

A Focus Group for members of NDLR CoPs and other users of the repository, as well as institutional representatives for the project, was conducted in May 2008, at the Irish Learning Technology Association's annual conference, EdTech³. Delegates from a broad cross-section of institutions were present, and the Focus Group discussion was recorded and transcribed for analysis.

3.3 Key Informant Interviews

This research used a series of semi-structured interviews (face-to-face, telephone) with each CoP Co-Coordinator and a range of key stakeholders. Interviews were conducted between May and September 2008. A data-gathering instrument (Appendix A) in the form of a questionnaire was used to guide each interview. Interviews were recorded with the interviewee's permission. Interviews were later transcribed to NVIVO software to facilitate interpretation of the data.

2 <http://www.surveymonkey.com/>

3 <http://www.ilta.net/>

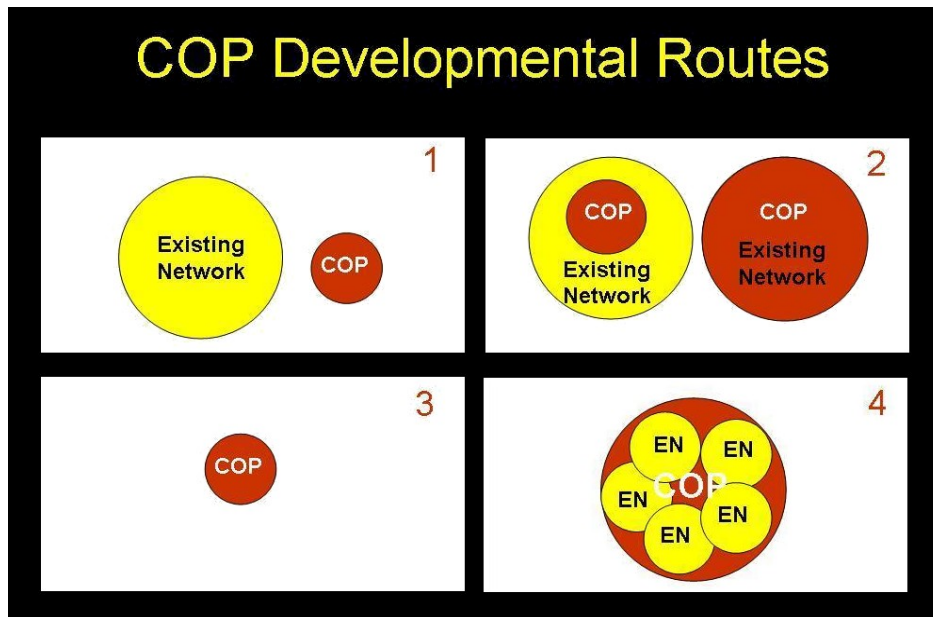


Figure 1: CoP Developmental Routes

Model 1: Formal/informal network/s were in existence but there was no visible collaborative development or sharing of teaching and learning resources between existing networks and the CoP. The CoP was set up alongside these networks.

Model 2: The CoP in its development built on an existing active network/s (formal/informal) who saw the opportunity to further develop existing collaboration and sharing. The pattern of development reflected the formal or informal nature of the existing network. One example of this was a CoP focusing on social care: it had become an integral part of a formal network, but nonetheless remained a distinct element within that network. But in another case, the network and the CoP had become indistinguishable from one another.

Model 3: The CoP developed with a clearly defined focus on producing learning objects for the repository. There was no previously existing network for the same subject area, and the CoP stood alone.

Model 4: The CoP developed to bring a number of related but previous unlinked existing networks together with a focus on sharing and collaboration. The CoP promoted collaboration and sharing across all the subject disciplines. One example of this was the CoP for Modern Languages.

4. Analysis

4.1 COP Developmental Routes

The analysis of our evaluative data indicated a number of developmental routes for the CoPs. The survey data suggested a nuanced approach to membership of a CoP, as well as mixed expectations amongst CoP members about what their CoP was engaged in doing. People joining CoPs did so for a variety of reasons, and had different perceptions of the central concerns of their CoPs. Other people answering the survey felt that they were participating in a CoP, although they did not actually count themselves as members. Moving from the survey to the interview phases of the research, we were able to investigate these findings in greater depth. The sequence of interviews with CoP Coordinators provided a very rich dataset, and in combination with analysis of the survey and focus group data, presented a varied picture of the emerging CoP models.

Each COP, although having its own distinguishing features, could be broadly classified under one of the developmental routes shown in [Figure 1](#). The emerging models described in [Figure 1](#) had all been successful in recruiting membership, developing resources for sharing through the repository, and raising awareness more generally of the NDLR. The evaluation data showed that all CoPs had a Coordinator. The role of the Coordinator differed between communities, and two distinct types of Coordinator were identified. For the purposes of this discussion they will be distinguished as follows:

- A *coordinator* is defined as an individual contracted to manage and facilitate a CoP.
- An *academic coordinator* is defined as an individual who coordinated the CoP with limited allocation of hours.

There were a number of ways in which the coordinator facilitated and managed the CoP. [Figure 2](#) illustrates this, and a brief description of each model of coordination follows. We have also included some illustrative quotes from the data where appropriate⁴.

4.1.1 Model 1

The coordinator drove the CoP from the top down identifying potential developments and events. The coordinator may have linked in with a very small number of active cohort of CoP members. This was often associated with CoPs that did not interact with each other outside of isolated events. The CoP activity was almost entirely driven externally by the coordinator.

Well I am the coordinator of the community of practice so essentially the COP really relies on me at the moment to provide activities and events and workshops and some notifications and communications around to everybody. So there isn't a huge amount of interaction individually that I am aware of within the COP. (ref: 4)

4 Quotations have been anonymised and used selectively in order to respect the confidentiality protocols under which interviews were conducted.

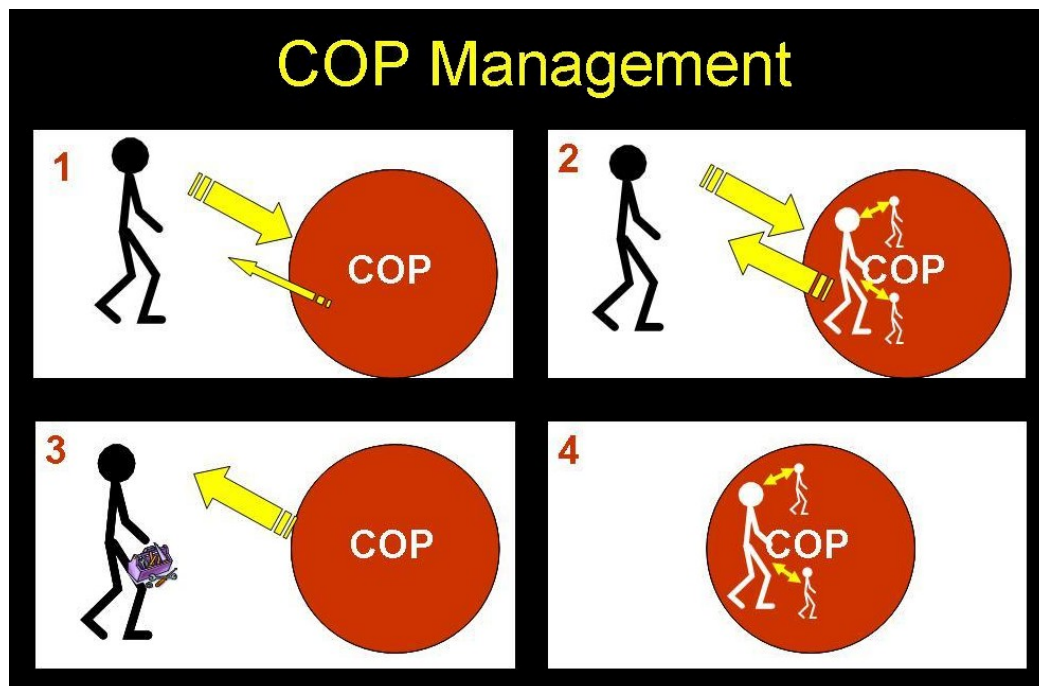


Figure 2: CoP Management

4.1.2 Model 2

The coordinator linked in with a steering committee chaired by an academic coordinator who collaboratively drove the direction of the CoP. In this approach the coordinator's role generally involved the organisation and administration of the CoP meetings, activities and events.

4.1.3 Model 3

The coordinator had very little day to day involvement with the activities of members of the community but provided technological expertise ("toolbox") as required. The coordinator's role was as a technical resource for the CoP. In this circumstance the coordinator was not involved directly in the organisation of meetings or driving CoP activity.

My group (...) want people to develop things for them and they can set up their own meetings so I don't have to do that, they will do all of that work, they come and ask for technical advice and pedagogical advice on how to develop resources when they want things done. (ref: 12)

4.1.4 Model 4

The CoP was coordinated by an academic coordinator who chaired a steering committee and who collaboratively drove the direction of the CoP. In this approach, the role of CoP coordinator was synonymous with the chairmanship of the steering committee. The CoP was driven from the ground up and the academic coordinator was a core member of the community.

Some coordinators had had to change roles in order to generate momentum within their community.

Recently I see myself as a facilitator but now I have to roll my sleeves up a little bit more because I think we need to have some kind of example of our resources in place to show to the members of the COP and the potential members of the COP (ref: 6)

There was a general belief that a COP coordinator was only required by the COP while it was in the initial stage of development. Once the community had generated momentum then their role was diminished. One COP coordinator was already experiencing a reduction in work load as the community had developed:

We have committed to maintaining the technical side of the website and at the moment it has got to the point where the coordinator is driving it less and the guest editors are driving it more and we would like to see that grow and grow. So the amount of workload for us with the community of practice is less now for us than it was 6 or 7 months (ref: 10)

If I do my job properly then I should do myself out of a job(ref: 6)

4.2 Concept of a community of practice

The CoP coordinators held different views on what is meant by the term 'communities of practice', and many of the NDLR CoPs did not fit with the conventional model of Wenger. In this respect, our findings reflect those of O'Keeffe et al. (2008) who noted the different patterns of formality and informality amongst the NDLR CoPs. The responses of coordinators cited below show their different perspectives on the ideas of community and networking:

I think communities of practice should be actively working together to improve the practice of the particular subject area or focusing on particular problems. That is what I understand that communities of practice would be actively working as a group(ref: 4)

I would see what we have developed actually as more of a network than a community of practice. Like there are people who do engage and voluntarily do things for us, like when I go and ask them for things, so I would think that very

much it is a top down thing. And community of practice to me is kind of a circular group that everybody gives equal input but unfortunately I don't think that is the case at the moment.(ref: 9)

we are primarily a network of educationalists who want to share good practice and ideas and get a teaching base to help the students to learn. And then in doing that and in coming together, we need to develop it [unclear words] we can work on it together and then put it in the repository (ref: 11)

A network could be a more loose casual thing whereas a community would be where people were committed and working together (ref: 11)

4.3 Challenges facing coordinators

The CoP coordinators outlined a range of challenges in managing their CoP. There was a significant challenge in generating momentum for the community outside the lead institution:

From my point of view I find it really, really difficult to get initiatives started up off the ground in other institutions.(ref: 12)

I was getting a lot of people just not responding to my emails, not engaging, especially... I don't know, other institutions they were very, just not interested here, you know they were too busy like doing another thing and they just didn't have enough time, they couldn't see the relevance of it. (ref: 12)

Although the NDLR was reliant on collaborative effort, it did not engender this overnight: many coordinators felt that there was an absence of sharing within or between institutions:

The culture within institutions is quite guarded (...) there doesn't seem to be the ethos of sharing even within a department never mind inter-institutionally kind of thing. So there are huge barriers there that need to be addressed and they are cultural barriers that I can see, so it is not something that can turn around in a short time. (ref: 4)

Some individuals were not confident about contributing to the community, which represented a further challenge to the coordinators:

Many members are resistant to do presentations because they feel they have nothing really of interest to present or say (ref: 4).

Time pressures, and the other priorities in participants' work, also affected the extent to which coordinators could influence activity in the CoPs:

I know that there are lots of resources on my computer that companies have given me and we have other resources from companies that I know I am never going to have time to just upload them.(ref: 9)

COP appears to have lost momentum as other priorities e.g. the need for members to focus on increasing student numbers in science has emerged (...) No clear academic individual to drive the community and work with the new coordinator (ref: 5)

The challenge for the evaluation, therefore, was to identify how to sustain and develop CoPs but also to enable them to generate momentum, develop a culture of sharing, and encourage collaboration in spite of the range of pressures experienced by academics in their work.

4.4 The experience of CoP participants

The evaluation allowed us to identify the four models of CoP development, as well as four patterns of CoP management described in the previous section. The research further highlighted that for members of the CoPs, networking and meeting people were often equally important (if not more important at the outset) than using the repository:

I love knowing what is going on and getting new ideas. The sector has many wonderful folk and it is energising to spend time with these people (ref: 7).

It was very useful in making connections to like-minded people (ref: 12)

Collaborations had begun that might not otherwise have taken place in the absence of the CoP. Collaborative development of learning objects for the repository was also taking place:

Met some interesting and friendly people and engaged in useful collaborative work (ref: 5)

Face to face events encourage communication and sharing, and the collaborative development of ideas/resources is really good fun. (ref: 36)

I am hoping to put some materials on the NDLR that I have already developed and some other materials that I hope to develop as a result of learning Camtasia in an NDLR workshop. (ref: 72)

All of the data suggested that CoPs needed more time to grow and evolve, but it was not clear where the responsibility lay for driving this. Respondents to the survey generally wished to give more time and commitment to their respective CoPs, but (perhaps reflecting a need for more time) also tended to say that the role of the coordinator/academic coordinator was essential:

I have not had enough time this year to engage as much as I would have liked with my CoP (ref: 25)

I think that this community should continue after completion of the pilot phase (ref: 49)

One key informant indicated that the coordinator was vital in making the connections between people:

someone who is a link to other colleagues and joins the thinking of the colleagues (...) when you have someone linked to a larger community they see a bigger picture and are ideally placed to contact people, when on your own it's much more random (ref: 13)

From the participants' points of view, the CoPs were valued, but still in their early stages of development.

4.5 Streamlining for sustainability

The analysis of our evaluative data showed that one issue was emerging clearly: sustainability. As a pilot project, the NDLR had been able to support the diverse models of the CoPs as they developed. CoPs had also been supported through a demand-led approach: in other words, if someone wished to form a CoP and could provide a clear rationale for this, the project could justifiably support it. This had led to the formation of 13 disparate groups, some addressing very broad subject areas, and others designed to cater to more specialised discrete groups. The roles of coordinator and/or academic coordinator were important in maintaining momentum in the face of other challenges and pressures on time. However, it was not clear that these roles could continue to be supported indefinitely.

In terms of funding, and also coverage of key subject discipline areas, the evaluation had demonstrated that there was need for a more sustainable and more flexible model. At intervals throughout the project, partners had considered alternative models and we considered this again in light of the evaluation. We also needed to consider sustainability in light of the preparation towards mainstreaming the NDLR as a service.

One model that seemed to offer potential to support a combination of subject-led CoPs as well as more 'thematic' ones was that of the UK's Centres for Excellence in Teaching and Learning⁵. However, the level of funding in the UK had facilitated the formation of over 70

5 <http://www.hefce.ac.uk/Learning/TInits/cetl/>

CETLs, allowing considerable flexibility in thematic areas and special interests. Resourcing such a model would not have been feasible. A model akin to the UK's Higher Education Academy Subject Centres⁶ appeared to have more potential: there was no previously existing formal network of this kind in Ireland, and it could aid the development of the NDLR in subject areas not currently covered by the existing CoPs. Finally, we considered maintaining the *status quo*, since the evaluation demonstrated that many CoPs were still at an early stage of their development.

Following discussion with the project partners, we pursued the idea of an umbrella-like structure for CoPs, holding and supporting a range of interest groups or smaller communities of practice within a broad subject area. This appeared to offer some potential advantages. During the evaluation, Maguire (2008) had identified this model being used to a certain extent amongst some of the existing CoPs, and to good effect. This model appeared to have potential for the continued development of the NDLR CoPs in the longer term, and we use the acronym SMARTCoP to denote its characteristic features.

The SMART CoP would be:

- **Sustainable:** Individuals and their institutions see the value of belonging to the community. It continues and is supported because it is worthwhile. It is driven from the ground up. There is shared ownership of the CoP's agenda and goals.
- **Manageable:** the group would only take on what could be done, without putting too much pressure on the community.
- **Active:** the CoP would have visibility on the web, and through face-to-face events.
- **Relevant and Reflective:** the CoP would be dynamic – if it were to meet the needs of its members, it would need to be able to respond to changing environments and react to them. It would do this through reflective practice.
- **Targeted:** it would have a clearly defined purpose (even if this were to change at intervals through reflective practice).

The SMART CoP Coordinator would be:

- **Supportive**
- **Motivational**
- **Accessible**
- **Responsive**
- **Technologically Competent.**

At the conclusion of our evaluative work, we therefore proposed the 'SMART' model as one which would offer the potential to grow and sustain NDLR communities, increasing subject coverage for the repository and providing a coordinated means to continue the growth of the service.

6 <http://www.heacademy.ac.uk/subjectcentres>

5. Discussion: Progressing to an ‘Evolutionary Pathway’

Following the completion and reporting of the NDLR evaluation workpackages in autumn 2008, the project partners framed a further phase of work with the existing NDLR CoPs for 2009. The purpose of this work was to progress the ‘SMART’ model for the CoPs’ continued development and expansion in the context of NDLR as a national service. Through facilitated workshops, and using email and wiki communications outside meetings, project partners pursued the idea of the SMARTCoP model with CoP Coordinators.

However, a range of factors influenced this discussion, and led the authors in collaboration with our project partners to consider whether the ‘SMART’ model was in fact one piece of a bigger picture. The changing economic climate meant that some CoP Coordinators had moved on from the project, and there was as a consequence a vulnerability in a model that relied on the ‘SMART’ Coordinator to be present and supporting CoP activities. Academic coordinators who remained were now carrying additional workloads, and/or had to work harder to gain buy-in from their colleagues who had less time than in previous years.

A second change influencing our discussions came from within the project, whereby the partners agreed a change to the licensing and also to the repository interface which moved the NDLR towards becoming a much more ‘open’ system. This change, while appearing subtle at one level, had the potential to make a significant impact on the future ‘SMART’ CoPs. In a more open system, there might no longer be the same impetus to join a CoP or indeed to learn to use or share via the repository from within a subject network.

Finally, in spring 2009, when a tranche of project funding was made available on a competitive basis to institutions interested in proposing collaborative projects to develop digital learning resources, there was an unprecedented response. This indicated to us that there was need to accommodate individuals and project teams in the future NDLR service who might not form CoPs, or who might need time to form a CoP. Rather than proposing one model – that of the SMART CoP – partners worked towards designing an Evolutionary Pathway to establish sustainable SMART CoPs, integrating support for local projects and collaborative work along the way. This pathway is shown in [Figure 3](#), and described in further detail in the following sub-sections.

5.1 Level 1: LIPs

At the first stage on our pathway were LIPs or *Learning Innovation Projects*. These would be executed within individual Universities and Institutions. Such Learning Innovation Projects would involve development of targeted reusable learning resources, as part of an overall approach to teaching in a particular subject discipline. LIPs would be funded by individual institutions from their NDLR funding. The success of these projects would be measured in terms of the numbers of RLOs delivered, and the delivery to specific training needs by the institutions. LIPs would facilitate intra-institutional collaborations and would address a wide range of subject areas. Their wider purpose would be to cement institutional engagement with the NDLR, and build support at ‘ground level’ for further work at the LInCS and SMARTCoP levels.

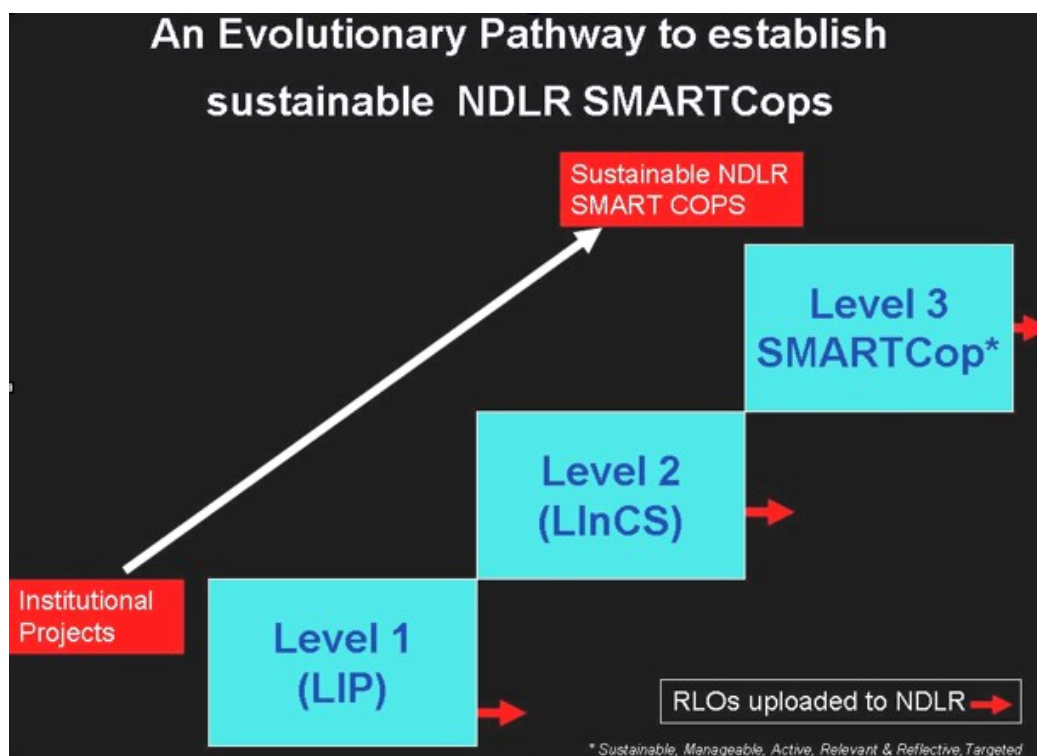


Figure 3: Progressing from local project to SMART CoP

5.2 Level 2: LInCS

Learning Innovation Community Support Projects (LInCS) would be activities supported to encourage the emergence of academic groupings around particular subject disciplines. These collaborative projects would be modelled on European projects, with a 'lead' institution coordinating the project in partnership with others. The NDLR service would identify prioritised subject areas as part of an annual funding call, and projects would situate themselves in the internationally recognised ISCED subject listing. Successful projects would again be measured in terms of the numbers of learning resources delivered.

LInCS would offer the facility to prioritise particular types of resource, and resources in a particular subject area. Inter-institutional collaborations would be called for, endorsed by each institution, with a minimum of three partners per project. Professional bodies could also be involved as partners, and the NDLR service would identify synergies, promoting and extending collaborations building towards sustainable SMART COPS at the top of the pathway.

5.3 Level 3: SMART CoPs

SMART CoPs would be communities in different disciplines and subject areas, corresponding with the ISCED subject taxonomy, composed of staff interested in the use and application of digital resources and technology in the teaching of their subjects. The SMARTCoPs would be cross-institutional subject discipline related communities associated with locally funded institutional learning innovation projects (LIPS) and cross-institutional collaborative projects funded (LINC)s).

As with all of the projects on the pathway, their focus would be on targeted development of learning resources, and their success measured in terms of the numbers of resources delivered. The SMART CoPs were intended to evolve from successful collaborations in LInCS, and to cover a range of subject areas, situating themselves in the ISCED taxonomy. SMART CoPs would receive support from the NDLR but should be sustainable without direct funding from NDLR. Individual institutions might also choose to support aspects of their work (for example, hosting of a conference or similar).

5.4 Summary

Within this evolutionary model, we could see a ready-made framework to support new communities of NDLR users either within a subject area, or forming from collaborative projects. Individuals were not excluded as they could propose a LIP within their own institution, and from there, collaborate with colleagues locally or cross-institutionally, ultimately forming a SMART CoP if they wished. The normal peaks and troughs of activity experienced by the existing CoPs would be set in the context of the evolutionary pathway: in other words, a LInCS grouping might exist for a defined period of time, or progress towards becoming a self-sustaining SMART CoP. By definition, the SMART CoP would have a critical mass of individuals, thus preventing a potential risk in the current structures, whereby the departure of one or two individuals could give rise to lengthy pauses in the CoP's activities. Defining different kinds of NDLR project, and different levels of involvement, offered the chance to use resources in a more targeted manner and to grow nascent groups in an effective way. The SMARTCoP, for some CoPs, would also be a means of making formal the informal structures already in place.

6. Conclusions

The evaluation studies undertaken by the authors and our partners in the NDLR have provided a fascinating insight into the trajectories of CoPs. From their initial starting points, guided by coordinators and academic coordinators, they have developed in a range of patterns coalescing around the four models we have described here, each with its own approaches to the development of digital learning resources, and having varying degrees of formality in its working practices.

While CoPs were successful in growing the use of the repository, and increasing both the quality and quantity of digital resources within it, the rationale for their establishment and management perhaps served the project best in its pilot phases. The resource-intensive nature of the model was proving difficult to sustain as we sought to develop adequate subject coverage, and appropriate ways of accommodating individual users of the repository who might wish to develop small, discrete sets of learning objects. While the original NDLR CoPs model was very effective for the pilot phases of the project, we identified a clear need to develop sustainable alternatives for users and communities of users.

Moving from a model focused exclusively on the development of CoPs themselves, as we have outlined here, and with our partners in the project, we have an integrated pathway for stakeholders in the repository as a mainstreamed service. Through the resourcing of projects on the basis of competitive bids, individuals can become involved without the formality of 'membership' of a grouping or network, but are nonetheless free to form CoPs. They are also actively encouraged to seek collaborators and develop their work so that it can in time lead to a self-sustaining CoP. We look forward to seeing participation across the third level sector at the various points along this 'pathway'. In terms of our evaluative work, we hope that the built-in metrics for future projects, derived in part from the evaluation outcomes, will contribute towards a richer picture of NDLR development and usage in the years to come.

7. References

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8. Appendix A

Interview with COP Coordinators/Leaders: Discussion Guide

COP Development

1. How did your COP develop?
2. What role did the NDLR have in its early development?
3. How does your COP operate?
4. Is that different from what it was during the early stages?
5. What role does NDLR now play in supporting your COP?
6. How does the COP communicate with participants? How often do you meet as a group?
7. How COP activities are planned and implemented?
8. Do you think there is the difference between a network and a COP or are they the same?

COP Participants

9. How many participants in the COP:
 - How many have provided RLO to NDLR?
 - How many have used other member RLO's?
10. How many of those participants are active contributors to discussions/planning/LO production/COP planning etc.?
11. How do you manage the QA of the resources that COP members put up on the NDLR?

NDLR Repository

12. Focusing on the repository itself from a COP perspective what are the benefits of having a National Repository?
13. How have your participants found accessing and using the repository?
 - Ease of using Interface
 - Uploading to Repository
 - Searching and finding RLOs

14. What strategies have you used to facilitate using the NDLR user interface?

- e.g. Modern Lang:
 - Co-ordinator does it for members
 - Has produced video/guide
- Maths:
 - Meta language on search option

COP Promotion

15. How do you promote the activities of the COP?

16. What do you see as the main selling points of the COP to a potential participant?

The Future

17. What would you consider the main achievements of the COP to date?

18. What do you think are the key aspects to ensure sustainability into the future?

19. Does a COP need a dedicated coordinator/Lead Institute to be sustainable?

20. How/Do you differentiate between the NDLR (Repository) and the NDLR – project funding support from HEA to enable practitioners to work together?

21. Looking ahead in a world with the NDLR (project), what future do you see for your COP?

22. Looking ahead in a world with the NDLR (Repository), what future do you see for your COP?

23. Looking ahead in a world without the NDLR (project), what future do you see for your COP?

24. Looking ahead in a world without the NDLR (Repository), what future do you see for your COP?

25. During the focus group someone commented that there was a view that COP's were a 'niche' set above and apart from the everyday practitioner. What comments (if any) have you on that statement?

26. What model would you think would be best for recommending for COPS into the future?

27. If I give you a scale of 1-10 to measure the activity of your COP (1 low - 10 High):

- What rating would you give its level of activity now?
- What rating would you have given it one year ago?