wetenschapswinkel.be

Session 3.d Knowledge transfer, students and Science Shops

ONLINE DATABASE
The daily working tool for the science shops network in Belgium.

Stefanie Goovaerts, Coordinator Science Shops network
Vrije Universiteit Brussel, Belgium

The Flemish network of science shops consists of a central contact point and 5 regional science shops based at 5 universities. We call this structure the central-regional (CR) model.

Our database is a tool to manage the incoming demands- with all their information and the complete further follow up- in a structured and uniformed way.
Serving both sides of the chain, civil organizations and research-students – in a network of 5 science shops- requires an efficient tool. The database has 2 interfaces: a public one (search engine for students) and a back office (administration part for science shops). The main advantages are efficiency, time saving, multifunctionality, and the fact that it is an *online* application.

Our experience with our first database gave us a good insight in how to collect, dispatch, follow up, keep an overview of the research topics of the network in an efficient way. It resulted in a plan for a new database. The new database simplifies the daily work of the different partners in the network in various ways, and acts as an important 'keep all customers satisfied' tool specifically for a CR network of science shops.

The network of science shops in Belgium uses a multifunctional tool to manage the daily work – from incoming research demands and the follow up at each science shop till the end result.

The network

The Flemish network consists of a **central unit or central contact point and 5 regional science shops** based at the 5 Flemish universities and 18 polytechnic schools associated.

This structure is called the **central-regional model**. Basically, it's a **one stop concept**; the outer world can access the network through one door.

That central contact point collects the questions of the organizations and sends these to the regional antennas. Organizations only once fill out an application form and their demand will reach the students of all the universities. Evidently, a question presented at several institutions has a better chance to be chosen. Through the single contact point organizations have access to the scientific knowledge present at all the different associated institutions.

The regional shops in this network are mediators between the non profit organizations and the universities. Yearly the central unit receives around 80 new research questions. Since the start we

can sum almost 500 questions. Currently there are 110 open topics and more than 100 civil society organizations collaborating with the science shops. For example the 2 mediators of the Brussels science shop each mediate yearly more than 25 different researches of different organizations.

It is important to keep a good overview so that organizations, students, research councils, university members and government always receive clear and correct information. To work practically in a network while keeping that overview at any time a very efficient working tool is necessary. A network doesn't have to be big. Even a few science shops located at one university can see the advantages of having an efficient working tool like a central database.

The network of science shops was founded in 2003. First there was a small database which was developed for a network of only 2 regional shops. The structure of the tool has been adapted several times but it wasn't satisfying anymore. The needs changed when the network expanded to 5 regional antennas with an increased annual number of research proposals from the civil society. Our way of working evolved and with it, also the criteria for a good management tool – the old database had only a restricted search screen and no admin part at all.

The tool

The purpose of the online tool is dual. Firstly an extended, clear **search engine** for students is needed and secondly the tool offers an instrument **to manage** the incoming demands – and the complete follow-up – in a structured and uniform way.

The tool serves both **students** and **mediators** of the shops, through two interfaces. One is the public interface for students searching for an interesting topic. The other is the admin tool for the employees – and log in and pass word is needed.

The third important actor next to students and science shop employees is the group of the **organizations**, the "clients". However, after weighting up the costs and benefits, it wasn't worth the investment to develop a special interface for them. Organizations can investigate the state of affairs of their questions by using the search engine of the students. But mostly they contact the central unit and once their question has been chosen by a student they are in direct contact with the regional shop where their research is carried out.

⇨ Search screen

Students have an **extended search engine** to find a topic that triggers their attention. There are different ways students can refine their query. First, they choose for their institution. Then students can search on key words, or on topics from one/several or all the organizations. They can choose to see only the questions of their discipline. They can choose for a specific kind of research: master thesis, bachelor project, internship, practical work.

The search result gives a clear overview with for each question a larger description and a possible expert who can guide them during the research.

⇨ Admin part

The whole flow, from incoming question till answer, with all the details, is stored in the admin part. It is a tool to collect, to dispatch, to follow up, to keep each other informed and to maintain an overview of the research topics of the science shop network.
The back office offers an up to date overview at any moment: where which topic is being offered, which topic is chosen at which institution, which research is ongoing/where, …

At the regional level the demands live their own life; the handling situation differs at each regional unit but there is always a link to the original application form at central level.

The flow from incoming question till the start of the research.

⇨ **Step 1: New application form – new research proposal**

A client fills out the online form and gets an automatically generated reply. New clients fill in all the data, but existing clients do not need to recall for example their contact information.

The central unit receives a message that a new form has arrived and assigns the form – through the database - to the regional shop located in the region of the organization.

⇨ **Step 2: Intake meeting**

The regional shop sends a mediator to the organization. The intake report is made available for all the other shops in the admin part. For this, they receive a message that a new proposal is pending.

⇨ **Step 3: Validation (of the research question)**

Each regional shop proposes the application to its advisory board. The board decides whether the question can be treated by a student, and which expert can be contacted within the university. Whether a topic is presented to the students or not often depends on the expertise that is present at the specific institution.

⇨ **Step 4: Student subscription (to research questions)**

When positively advised, the topic will be activated for the students of the institution. Each regional shop validates the application, rephrases it, tags it with the relevant scientific disciplines and points out an expert. So at each regional shop a research topic starts to live its own life.

When a student officially subscribes at one regional shop; the employee mentions it by tagging the topic as chosen and others receive a message that the topic is no longer available. In the database the status of that topic is automatically being changed into 'occupied'. Hence, students will no longer see it appear in their search results. This avoids miscommunication or overlaps, or parallel work.

Those 4 steps show the complexity of the network and the flow of the demands becoming research questions for students.

How to keep a clear view?

Files & logs

By keeping **files** at the central level and **logs** on the regional a unified view for all is assured

When a new demand arrives on the central level, a **file** is automatically created in which information about the demand is stored: when was it sent to the central unit? who did the intake? and when? where is it accepted by the advisory board, where is it presented to the students and for which disciplines? And later on: which science shop has taken up the research? who is the

student?, … At any moment, the file gives a state of affairs.

The central file is linked to 5 regional logs. Through a **log for each question on a regional level** linked to the file with the original demand on the central everything can be traced.

For a new demand, each regional shop creates a log with regional information. In the log every action is written down. Feedback from the advisory board –positive or negative advise, every meeting, every phone call, every mail, important agreements are noted, reports are attached… Thus every action until the end of the process.
At any moment the employee and his colleagues – because it is online so every one of the colleagues has access – knows exactly what's going on with a specific demand.

Advantages

The most important advantage of this **centrally organized online database** is its **multifunctionality**
with

=> on the one hand the very **extended search possibilities for the students**

=> and on the other hand the **transparent, continuously updated administrative part.**

On central level a total overview of all ongoing researches at the different regional antennas is provided: what topics are presented where, which research will start where, ...?
On the regional level there is an overview of all questions regionally proposed and their state of affairs.

Thanks to the extended admin part, lots of facts and figures can be generated from the database. Facts and figures are very important for all concerned: the shops, the academic authorities and the funding agency.
How many applications every year, how many questions per institution, per discipline, on a regional basis, what kind of research, which domain of the non profit sector, ……?

Such a back office encourages the cooperation between the different shops and simplifies the daily work among each other. The tool offers a very transparent way of working. Lots of actions are automated and at the same time there is flexibility to change things manually.

Of course it is an important investment. It cost time and money to develop it. But it is a wonderful tool for science shops or alike organizations who want to work with a central –regional model such as a network of shops in one university (the Netherlands). It is of course also very handy for only one shop. The tool will be much less complex and hence, also less expensive.

Contact:
Wetenschapswinkel.be
P/A Vrije Universiteit Brussel
Stefanie Goovaerts
R&D – building M
Pleinlaan 2
1050 Brussels
Phone: 0032 2 629 18 35 - @: info@wetenschapswinkel.be
Powerpoint presentation available on www.scienceshops.be