

# The GALATEA-system: What, How, Why?

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## ABSTRACT

*In this article we explain the form and content of the GALATEA-system, a new multimedia database aiming to provide a user-friendly tool for the elaboration of new web-based courses and the study of a wide range of topics in the humanities. We also comment the way it can be used in practice by both students and teachers. Finally, we propose some ideas that may give an idea of the intellectual ambitions behind the tool.*

## 1. WHAT IS 'GALATEA'?

GALATEA is not only the name of the well-shaped nymph Pygmalion fell in love with and whom the great antique artist tried to recreate by way of a sculpture. It is also the name of a multimedia database which offers an interface and learning tool developed by a team of teachers with very different disciplinary backgrounds who share a strong will to update, modernize and, at least partially, to transform the study of the image by a well-conceived use of both ICT and new learning environments.

The reason why GALATEA has been developed in our Faculty has to do with different reasons. Some of them were '*negative*': as teachers, we often suffered from the insufficiencies of the traditional learning tools, in our case the so-called 'slide-lecture'. Beside the fact that the material conditions in which one has to use slides are not always excellent, there is also the fact that the slide-lecture is a very limited and vanishing medium: it is not possible to view more than two slides simultaneously, the shifting from one distant image to another always takes a lot of time, and the viewing of the image is unavoidably reduced to the few seconds that an image is shown on the screen in the class-room. Other reasons, however, were '*positive*': the University of Leuven has adopted an ambitious plan aiming to emphasize the pedagogical model of self-learning on the one hand and to make a didactically justified use of ICT on the other.

The way GALATEA has been conceived, developed and implemented obeys that double logic of renewing traditional teaching and learning methods and introducing new ones. The principles of the system are very simple and undemanding to learn. GALATEA mainly consists of three elements, which can be very straightforwardly combined, completed and transformed by the teacher:

### 1) A set of images on various visual topics

The first aim of GALATEA is not to create a visual database in se. There exist already a certain number of

excellent visual databases, and the amount of visual information available on the Internet is also growing very rapidly. What we try to archive and document in GALATEA, however, are a number of highly specialized visual topics and issues absent from the major visual collections actually available. From the very moment a course discusses very specialized problems, it becomes very difficult to find a coherent and full visual documentation, be it in printed or in electronic form. This documentation has to be built-up and described patiently, and the only way to offer it to the students in a simple and affordable way, is to gather all items as electronic records in a database.

In the case of GALATEA, we have already created two of those specialized sub-collections: a first one on the theoretical study of the *word and image* problem (a collection of some 350 images), a second one on the field of *art in the public sphere* (a collection of some 650 images). For theoretical reasons which we will develop further on, we have decided not to split these sub-collections on database level, so that each teacher can access (and use!) also the image sub-collection created by his or her colleague(s).

### 2) A set of texts, i.e. of courses

GALATEA also proposes a set of web-based courses, which are *not* traditional courses 'put on the web', but completely revised versions of existing courses or completely new courses. In all cases, the basic principles of writing and reading for and on the screen are scrupulously followed: a clearly indicated *global structure* of the course (the teacher has to make a kind of 'map' and to make it available to the students), *the division of the text* in smaller units or 'lexias' (in our case we have pursued as much as possible the coincidence of text-block and screen), the exploitation of *internal and external navigation* possibilities (GALATEA enables to leap instantaneously from one level to another and back, and may include links to other sites) and the *cautious* use of it (we have to prevent students from being lost in hyperspace, hence the insistence upon the central place of the 'map'), the exploitation of the *multimedia* possibilities of the internet (one of the strongest points of GALATEA), the invitation to make an *interactive* use of the system (this will be explained in our next point). Actually, two courses are available: one on interartistic comparatism, and one on contemporary art in the public sphere. A course on the relation between contemporary painting and other media is being prepared for next year, and a course on literature and film is also scheduled.

### **3) A set of discussion forums**

One of the elements enabling the exploitation of the interactivity of the electronic media is the well-known discussion forum. In the case of GALATEA, and knowing the challenges and the dangers of this kind of interactivity, we have preferred to both multiply and reduce these forums.

The *multiplication* of forums is the logical consequence of the division of the courses in lexias (hierarchically divided in units and sub-units). Instead of creating one single forum for the whole course, we have added a specific forum to each unit, and we have divided each forum in as much sub-forums as there are sub-units in a given unit of the course. By doing so, our aim is to avoid the undesirable and undesired labyrinthine effects of the tree-structure of a discussion forum.

The *reduction* becomes so the logical counterpart of the multiplication. On the one hand we multiply the number of forums, on the other hand we provide them with such a specific scope and such a specific content that there is no danger of being overwhelmed (and thus discouraged) by the messages that can be sent to the forum.

Both *multiplication* and *reduction* transform the status of the discussion forum in a fundamental way, for the small and specific forums we want to develop can so become part of the course material. The discussions on the forum are so 'small' and so 'specialized' that they are able to provide useful complements to the text of the course itself.

## **2. HOW TO USE IT AS A STUDENT AND A TEACHER?**

Let's now become a little more practical and see how these general principles function in practice, both from the viewpoint of the student, and from that of the teacher. Before giving some details on their way of using GALATEA, it is important to stress that the web-based course as we see it is only part of a larger course. Indeed, the global KU Leuven philosophy of ICT based self-learning does not imply at all that the internet becomes fetishized as a didactical *deus ex machina*. On the contrary. The web-based technology and the will to foster self-learning are integrated in a new learning environment in which our ambition is to find the perfect balance between several types of teaching and learning.

In practice this means that the courses using GALATEA pursue a combination of web-based learning and teaching on the one hand and traditional learning and teaching on the other. The work done on the computer and the information provided by the electronic course must be completed and, if necessary, corrected by a number of physical meetings and exchanges between the teacher and the students. In other words, the use of GALATEA does not signify that the so-called 'contact-hours' are abolished, on the contrary. Yet their number is reduced by some 50%, and of course their form and content shift also in a radical way. The contact-hours are no longer used to talk (this was supposed to be the role of the teacher) or to listen (this was

supposed to be the role of the student), but to discuss the material studied and prepared by the students.

Since we use to teach courses to groups of students that are not 'small' (the GALATEA-courses are taken by groups of 40 to 80 students), it is of course necessary to divide these groups in smaller ones. Hence of course the already mentioned necessity of dividing also the different units in sub-units, the forums in sub-forums, etc. (their exact number has of course to be determined in function of the number of students taking the course). As far as we see it, it should be possible to create sub-groups of 5 or 6 students and ask each of these subgroups to prepare a specific question of the global unit to be discussed during the contact-hours. This way of working enables all students both to assimilate the unit as a whole and to meet the challenge of a more specialized item, while not losing the contributions to the other specialized items. Indeed, all sub-groups have the possibility to present their findings during the contact-hours, and to have them discussed by the others. This confrontation brings also fresh ideas and cross-fertilizes the discussions on the specialized topics.

### **1) GALATEA from the viewpoint of the student**

Once the student has registered (and of course this operation is accomplished electronically), he may enter the site and access the course material. First the student can have a look of the global content of the course, the so-called 'map-screen', to which it is always very easy to come back. Then an introductory screen explains the basic principles of the course, its intellectual content and ambitions as well as the way how to use its electronic version in a fruitful way. When entering the course, the student is strongly encouraged to follow and study the units and sub-units in the order determined by the teacher, since the succession of the units obeys an intellectual and pedagogical logic (which goes from the simple and the general to the more complex and the more specialized). Of course, this order is not compulsory in the technical sense of the word: GALATEA permits to navigate freely from one unit or sub-unit to another, but this is only useful after the students have followed a first, and rather linear trajectory, whose aim is to familiarize the students in a very progressive and didactic way with the content of the course.

In each textual sub-unit, the student may find three other types of information: a) a selection of images directly related to the topic of the sub-unit (we call these sets of images 'slide-shows', in order to distinguish them from the ancient 'slide-lectures'), b) a selection of links to other sites, c) the name of the specific sub-forum on which the students will have to tackle a question or discussion topic mentioned within the text itself. All these elements (whose presence is of course not compulsory: sometimes there are only links and the name of a forum, but no images, or vice versa) appear in a very simple way: by clicking in a small box at the head of each sub-unit screen, the student pops up a small window indicating with great precision what further elements are available with the text.

Once the student clicks on one of these items, a new window appears containing the elements asked for: the discussion forum, a set of URL's, or the slide-show. In this last case, the student receives first a survey of the available images in thumb-nail format, with only their title and the name of the author of the work. But by simply clicking on the image, one can obtain a full-screen zoom of it, and one furthermore has also the possibility to obtain a comment (written by the teacher) focusing on the precise meaning and the importance of the image in question for the sub-unit which it illustrates. In order to go back to the text-screen, it suffices to close each of the popped-up windows.

## **2) GALATEA from the viewpoint of the teacher**

One of the great advantages of GALATEA is its user-friendly character. Many teachers do not have well-developed computer writing skills and since they are permanently overcommitted, the ideal solution is not only to help them train and develop these skills, but also to help them find new and better, i.e. more user-friendly tools. With GALATEA, we are convinced that such a tool is now available.

Let's illustrate this by the two major operations a teacher should be able to perform when using a web-based technology.

In the first place, the system used should permit to insert all necessary elements in an easy and rapid way. Thanks to the editing facilities of GALATEA, which uses a text editor based on the well-known Word for Windows interface, any teacher can now put a course on the web in very few hours (one has to add however that this facility is provided only with the Internet Explorer browser, not (yet) with Netscape Communicator). With some cut-and-past and some minimal editing, it is possible to insert a new course of some 60 screens (sub-units) in just one afternoon. Of course, this supposes that the course has been conceived and developed in function of the constraints of web-based writing we have enumerated above (it would be absurd to 'cut up' an existing course in small units and to put it on the web: the logical structure of the whole course has to be rethought, but this is an intellectual problem which has nothing to do with GALATEA or other similar interfaces).

As far as the images are concerned, one has to make a distinction between the scanning of the images and their insertion in the visual database on the one hand, and their description on the other. Since the management of a database is a very difficult task, this part of the work has imperatively to be done, controlled and permanently updated by the local webmaster, for the slightest technical mistake could provoke big disasters. The description of the images, however, can be performed very easily by the teachers themselves. For each new image GALATEA generates automatically a full description file which has only to be filled-in by the teacher.

Concerning the discussion forums and the supplementary links, finally, GALATEA has no secrets for the teacher, who can create links and forums as much as he or she wants.

In the second place, the existing information (texts and courses, images and slide-shows, discussion forums) should also be uncomplicated to transform. On this point, the GALATEA system may really be called revolutionary. Thanks to a small set of very simple operations, it has become possible for the teachers to make themselves all changes one may esteem useful or necessary, and to do it in real time, whatever the place they are at that moment or the computer they are using.

But which are the operations which can be performed so easily? Let's give of some examples:

- the editing of the text: text-blocks (units, sub-units, paragraphs, words...) can be added or removed, or they can be corrected or completed;
- the creation of new courses;
- the description of the images;
- the creation of slide-shows (i.e. the selection of a small group of images and their linking as a visual 'block' to one of the sub-units);
- the editing of these slide-shows, which can be removed, completed, transformed etc., on-line, without any knowledge of complicated computer skills;
- the creation of discussion forums, etc.

Moreover, it should be stressed that while the students are working with GALATEA, the teacher is always interactively present. He or she can post messages on the forum, and is available for questions sent by the students.

## **3. WHAT'S NEW ABOUT GALATEA, AND WHY DO WE NEED IT?**

GALATEA opens new perspectives for problem-led and open learning. It uses a method based on the treatment of theoretical problems and issues, while enabling the student to progress individually and/or in small groups and giving the teacher many opportunities for new types of tutoring and assessment.

GALATEA has thus many technical and didactical advantages, which should make it very soon a widely used interface.<sup>1</sup> However, for teachers and scholars, the interest of the tool is also intellectual. In this regard we would like to stress some major developments which can be expected from the implementation of GALATEA at a wider scale, both within our own Faculty and within networks of teachers and scholars committed to use the interface. From our viewpoint, these larger developments are necessary for a fully academic use of the GALATEA, since no serious scholarship can be realized without the following features: self-reflexivity, transdisciplinarity, and internationalization. As a conclusion of our presentation of GALATEA we will discuss shortly each of these three items.

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<sup>1</sup> Institutions interested by GALATEA are invited to contact the copyright holder, which is the Maerlant Centre for electronic publishing of the KU Leuven. Please mail to the Head of the Centre, professor F. Truyen: fred.truyen@arts.kuleuven.ac.be

### **1) Internationalization**

Although GALATEA only exists for the moment in a Dutch version, it will prove very useful for international networking once an English version will be ready (and the elaboration of this version of one of our current priorities). This networking is important for teachers as well as for students. Indeed, the use of GALATEA will enable several institutions to constitute a 'pool' of courses that will be exchangeable with no difficulty. For the teachers and their faculties, such an orientation will facilitate the construction of truly international curricula and the fostering of transnational research. For the students, it will represent a good alternative for the (shrinking) possibilities of the Erasmus-Socrates programs. Indeed, given the fact that each year lesser amounts are available for (physical) students exchanges, the wider use of GALATEA-based courses may create many opportunities for the making of virtual and multilingual exchange programs.

### **2) Transdisciplinarity**

One of the most challenging features of the work already done on GALATEA is that it has been conceived and implemented by teachers of rather different orientations (until now cultural studies and art history, two departments that often do not really cooperate with each other). This 'intellectual joint venture' is not just the gathering of two or more academic threads or profiles, but implies also the refusal of all disciplinary *a priori*s. In order to make to GALATEA-tool useful for other applications, we had to start creating a tool that could be used by both students in cultural studies and in art history. The basic choice for such an interdisciplinary tool has obliged us to sacrifice some holy cows, but it has also allowed us to increase the didactic virtues of the program, freeing it from everything which could hinder its modular composition and its opening to a wider group of target-audiences.

### **3) Self-reflexivity**

Finally GALATEA appears also to be a perfect instrument in the necessary reflection upon and transforming of the approach of one's own discipline. This (meta-)methodological aspect is in fact the place where all the other aspects of GALATEA converge: ICT, didactics, internationalization, and disciplinary and intellectual border-crossing oblige all users of GALATEA to critically re-examine the basics of the discipline one is working in. Concerning the disciplines in which the analysis of the image plays a central role, one is obliged, for instance, to analyze the way in which technology contributes to the construction of the 'self-image' of a discipline, and to historicize thoroughly the results of such an analysis.

As we argued at the beginning of our presentation, the first idea of GALATEA came from our unhappy relationship with the traditional practice of the slide-lecture. Yet what we've learnt from the elaboration and the introduction of the new system, is not that it is possible to replace one representational system by another

(let's say the traditional slide-lecture by its electronic younger brother), but that this technological change produces inevitably a *completely new theory* of what an image is and how one has to conceive the methodological underpinnings of a discipline.

An image presented by way of an electronic slide-show has no longer the same characteristics as an image presented by way of a traditional slide-lecture (one loses for instance the life performance of the teacher and 'magister' who can control to a certain extent the reaction and the opinion of his audience), and at the same time it is provided with new features (one has for instance the possibility to have a close look at artworks without being obliged to hear or read the comment by the scholar or connoisseur, preferring to their voice the peer-reviewing by students on the discussion forum). One can be sure already that the consequences of this (partially) decontextualized discovery and appreciation of images, either artistic or not (but how can one tell the difference anymore?), will be considerable, just as will be the result of the systematic miniaturization of images. Since electronic images, even in the case of a zoom, tend to be small-scale images, one shouldn't be surprised if certain types of images will become more prominent in our visual databases, whereas others may fade away for they are no longer able to yield 'useful' examples.

Of course, it is too soon to predict which art history and which visual culture will arise from the ongoing electronic paradigm shift, but these changes will inevitably engender new ways of teaching and learning. The GALATEA interface is not only a practical and technical part of this paradigm shift, it obliges also to reflect upon it and to link teaching with scholarship and methodology.

## **REFERENCES**

Nelson, R. S., "The Slide Lecture or the Work of Art History in the Age of Mechanical Reproduction", *Critical Inquiry*, Chicago UP, vol. 20-3, 2000, 414-434.