

# DELIVERABLE

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## Best practice in User Engagement with Epigraphic Content, Including IPR Requirements

**D2.3.2**

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### Authors:

**Christian Uhler (PLUS)**  
**Andreas Sanders (PLUS)**

### Contributors:

**Francesco Mambrini (DAI)**  
**Antonio Enrico Felle (UNIBA)**  
**Pietro Maria Liuzzo (UHEI)**  
**Anita Rocco (UNIBA)**  
**Rada Varga (UBB)**

### Reviewers:

**Alessandra Giovenco (BSR)**  
**Silvia Orlandi (UNIROMA1)**

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		Giovenco Silvia Orlandi Alistair Sutcliffe	UNIROMA1 UNI-MA-UK	Reviewing Reviewing
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## Executive Summary

The aim of this deliverable is to give an introduction to general user engagement questions, including a short review of best practice methodologies in general. It presents a best practice proposal for user engagement management of the EAGLE BPN. This includes a strategy for approaching sustainable user engagement in order to accomplish the re-use of the epigraphic content provided in EAGLE.

The introduction gives an overview of the following topics:

- Overview of current research in user engagement which is currently overturning the dominant usability paradigm. Aspects of commercial and non-commercial studies are discussed.
- Discussion of the theoretical background of best practice research (BPR), comparison of quantitative and qualitative approaches in BPR and their limitations.

Chapter 3 shows the application of a user engagement strategy, which is considered to be best practice in the field of cultural heritage. A framework which defines the “main (four) blocks” of activities in order to arrive at sustainable user engagement is adopted. Difficulties and challenges in how inscriptions can be disseminated to the general public are discussed in detail.

Chapter 4 gives an overview of examples of user engagement with epigraphic material. This comprises volunteer work in archives, school and museum projects involving translation and interpretation of inscriptions, web-resources, Wikipedia initiatives, the experiences of summer schools for students in the field of classics, a detailed study on engaging tourists with roman inscriptions and the description of a project that is under preparation in cooperation with BSR and Liceo Classico and Scientifico.

Finally, the appendix contains a summary of EAGLE user dedicated services and the results of an internal survey that was launched in order to better tailor the EAGLE project and its website to its users' requirements.

## List of Abbreviations

AEH - Archivo Epigráfico de Hispania  
AshLI - The Ashmolean Latin Inscriptions Project  
BRG - Bundesrealgymnasium XIV, Vienna  
BSR - British School at Rome  
CE - Customer Engagement  
CYI - The Cyprus Research and Educational Foundation  
DAI - Deutsches Archaeologisches Institut  
DoW - Description of Work  
EDB - Epigraphic Database Bari  
foss - free and open source software  
FSA - Flagship Storytelling Application  
GA - Google Analytics  
LUPA - [VBI ERAT LVPA](#) monument database  
PLUS - Paris Lodron University, Salzburg, Austria  
UAH - Universidad de Alcalá, Spain  
UE - User Engagement  
UBB - Universitatea Babes Bolyai, Cluj, Romania  
UX - User Experience  
UHEI - Ruprecht-Karl-University Heidelberg  
UNIBA - Università degli studi di Bari Aldo Moro  
UNIROMA 1 - Sapienza - Università di Roma  
UNI-MA-UK - University of Manchester/United Kingdom  
WG - Working Group  
WM:DE - Wikimedia Deutschland e.V.  
WP - Work Package  
ZRC SAZU - Znanstvenoraziskovalni Center Slovenske Akademije Znanosti in Umetnosti



## List of External Contributors

Dirk Ingo Franke (Community Manager Wikimedia Deutschland e.V.)  
Mariano Rodíges (Archivo Epigráfico de Hispania)  
Jane Masségia (Ashmolean Museum in Oxford)  
Martin Oppel (Bundesrealgymnasium XIV, Vienna)  
Abigail Graham (British School at Rome - Epigraphy Summers School)  
Ortholf Harl (Editor of [VBI ERAT LVPA](#), Vienna)  
Friederike Harl (Editor of [VBI ERAT LVPA](#), Vienna)  
Alistair Sutcliffe (University of Manchester/United Kingdom)

# 1. Introduction

## 1.1. Context of the Deliverable within EAGLE

This deliverable D2.3.2 is focussed on user engagement only, the recommendations on IPR requirements have already been submitted in D2.3.1<sup>1</sup>.

The reasoning was: before the working group deals with questions regarding user engagement, questions related to intellectual property rights needed to be addressed. User engagement can only happen in an orderly (and legal) way once content that is to be provided has been properly labelled.

The aim of these guidelines is to identify different types of users and select methods and best practices to be implemented in order to attempt the engagement of a larger part of the public with this material.

Regarding user engagement, user groups their behaviour should be identified and concepts for specific services to enhance their active participation need to be developed. The results of this task will affect the design of the the end-user dedicated services (WP5 details see chapter [6.1.](#)) and project dissemination (WP6).

### 1.1.1. Description of the Task Regarding Best Practice and User Engagement Within the DoW

*“This task analyses and evaluates strategies and practices to foster the re-use of the epigraphic content provided in EAGLE, including:*

- *studies of user behaviour*
- *identification of user groups*
- *concepts for active participation of user groups*
- *concepts of specific services for specific user groups (e.g. school projects)*
- *concepts to establish communication between the users including also benefit-cost analysis of social networking services as Facebook et al.*

*The groups addressed in this task will encompass the general public (e.g. the tourists), the public with a special interest in cultural heritage and in classical Greek and Latin culture, the subject*

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<sup>1</sup> <http://goo.gl/wixDmf>



*specialists and academic experts (researchers, students, teachers). Based on the analysis of user behaviour (how do users get to the web services / what services are demanded most frequently...) best practice and guidelines will be worked out to provide services (e.g. an interactive workspace) that support community building and user to user interaction with cutting edge usability,”*

## 1.2. Methodology

In order to reach a better understanding of the current practices in arriving at best practices for user engagement, we conducted desk research on the following topics: Current scientific research on user engagement, user experience and practical recommendations for the cultural heritage community. We also discuss the terms “Best Practice” and “User Engagement/Experience” to try and clarify the task at hand.

First ideas on how to present epigraphic content to the general public and on possible user groups of the EAGLE web applications were presented at the EAGLE workshops in Pisa and Ljubljana. At the EAGLE conference in Paris a session was dedicated to user engagement including a poster presentation<sup>2</sup>.

All activities of the project partners related to user engagement (on- and offline) have been identified and analysed regarding possible user groups as a basis for further developments. Finally a set of best practice recommendations for the individual tasks of EAGLE and related projects is presented. A first presentation of the deliverable results for the project partners will be held at the Nicosia conference.

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<sup>2</sup> <http://goo.gl/4UwZGA>

## 2. Theoretical Background

### 2.1. Current Research: User Engagement

User engagement and the related user experience are strange phenomena, difficult to analyze and even harder to predict. Research of human-computer interaction shows some results involving various theories, but at the same time has been criticized repeatedly for being vague, elusive and ephemeral. *“Anyhow research gained momentum in recent years, mostly as a countermovement to the dominant, task- and work-related ‘usability’ paradigm”* (Hassenzahl & Tractinsk, 2006). The usability paradigm is based on effectivity and efficiency as well as attempts to remove barriers and difficulties when dealing with a product, while user experience and connected user engagement is - according to Hassenzahl et al. (2008) - understood as a motivator and described as an overlapping system of three main perspectives (see Figure 1).

ISO 9241-210 (Ergonomics of human-system interaction, 2010) defines user experience as *“a person's perceptions and responses that result from the use or anticipated use of a product, system or service”*.<sup>3</sup>

Hassenzahl and Tractinsk state that *“User experience is a consequence of a user’s internal state (predispositions, expectations, needs, motivation, mood, etc.), the characteristics of the designed system (e.g. complexity, purpose, usability, functionality, etc.) and the context (or the environment) within which the interaction occurs (e.g. organisational/social setting, meaningfulness of the activity, voluntariness of use, etc.). Obviously, this creates innumerable design and experience opportunities”* (Hassenzahl & Tractinsk, 2006). ‘All About UX’, a website for UX professionals, lists 27 definitions for the term User Experience<sup>4</sup>.

The following gives an overview of current research trends.

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<sup>3</sup> <http://goo.gl/0fbPx5>

<sup>4</sup> <http://www.allaboutux.org/ux-definitions>

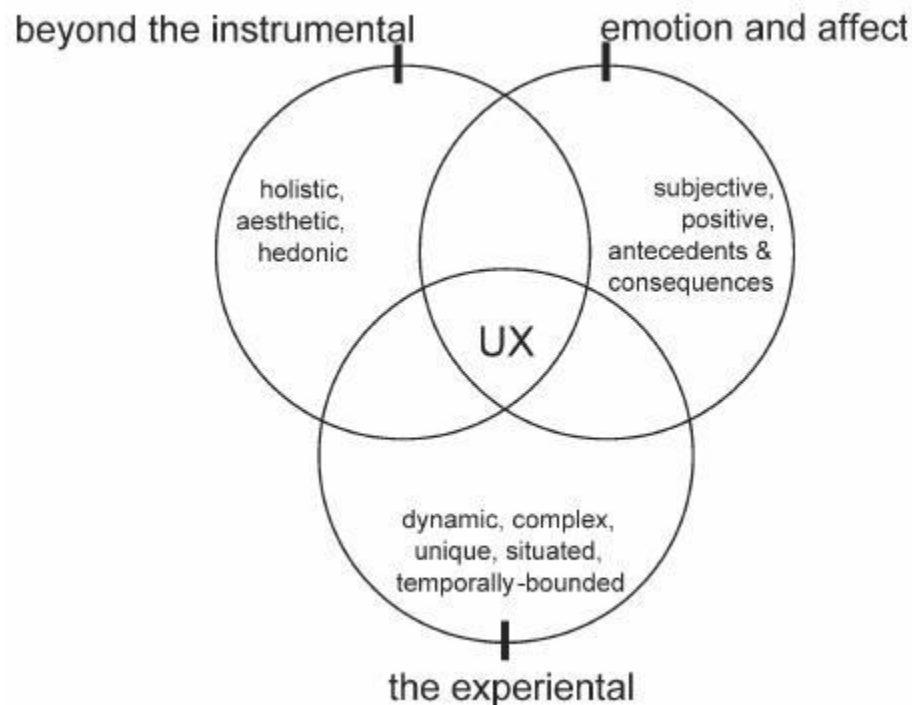


Figure 1: Venn diagram of user experience according to Hassenzahl & Tractinsky (2006). It describes three overlapping perspectives beyond plain usability research: beyond the instrumental, emotion and affect and experiential.

#### User Engagement definitions:

- A quality of user experience that depends on the aesthetic appeal, novelty, and usability of the system, the ability of the user to attend to and become involved in the experience, and the user's overall evaluation of the experience. Engagement depends on the depth of participation the user is able to achieve with respect to each experiential attribute (O'Brien & Toms, 2008), a model for user engagement was developed, see Figure 2 below.
- "...explain[s] how and why applications attract people to use them" (Sutcliffe, 2010).
- User engagement is a quality of the user experience that emphasizes the positive aspects of interaction – in particular the fact of being captivated by the technology (Attfield et al, 2011).

- Summarized, user engagement is the quality of user experience that emphasizes the positive effect of interaction - successful web applications are not just used, they are engaged with, users spent time, attention and emotion on them (Lehmann et al., 2012).

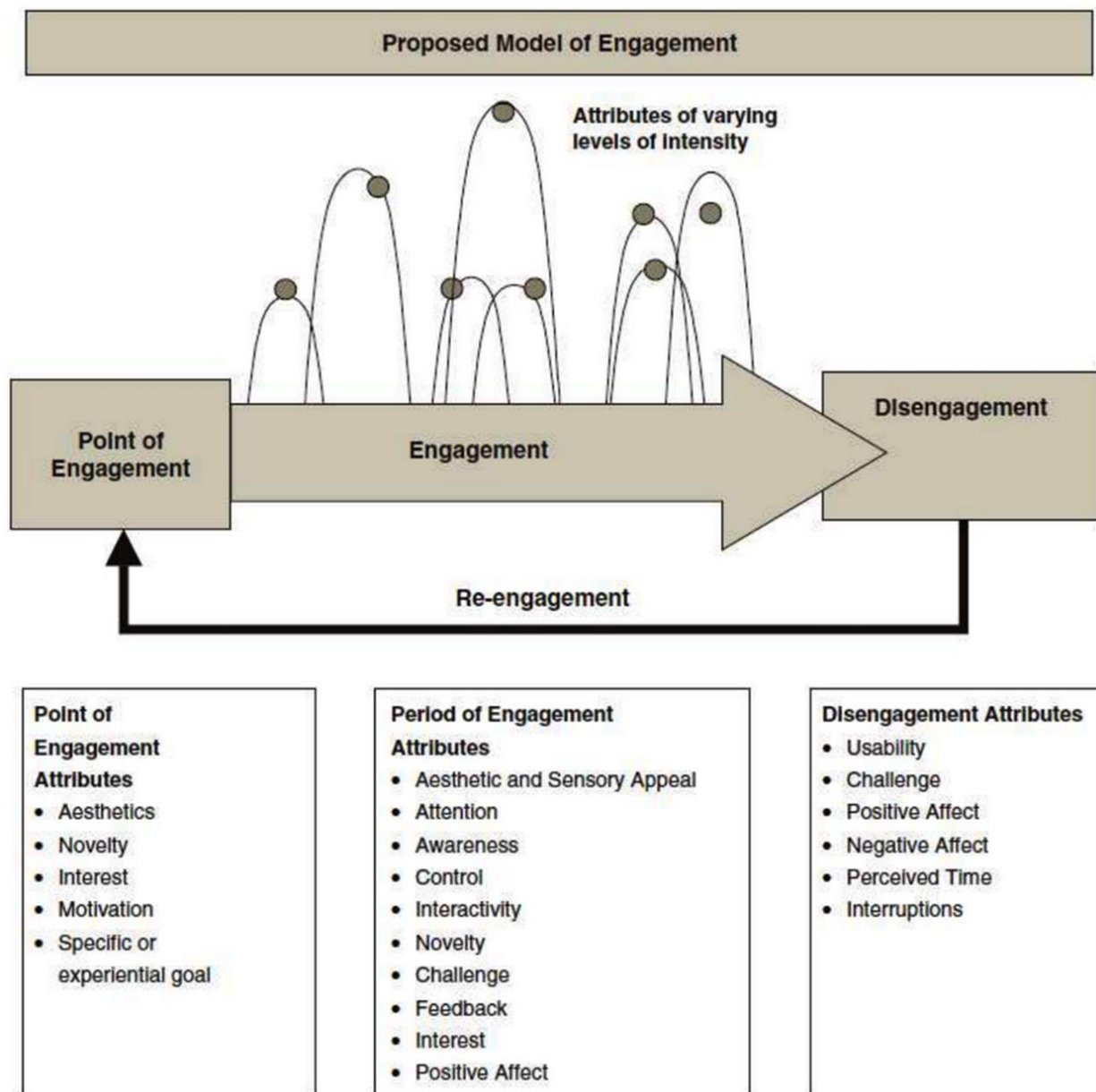


Figure 2: Model of user engagement and its attributes according to O'Brien & Toms (2008).

Early research stated that user engagement manifests itself in the form of attention, intrinsic interest, curiosity, and motivation (Chapman, 1997). Currently, the theoretic framework on UE

consists of the theories of ‘flow’, ‘aesthetic’, ‘play’ and ‘information interaction’ (O’Brien & Toms, 2008).

Connected to the experience of a user is the ‘**flow**’: *The state in which people are so involved in an activity that nothing else seems to matter; the experience itself is so enjoyable that people will do it even at great cost, for the sheer sake of doing it* (Csikszentmihalyi, 1990). So engagement has been called flow without user control or perceptions of attention focus, curiosity and intrinsic interest (Chapman et al. 1999). Engagement has a strong relation to aesthetic experiences, which force focused attention, are intrinsically motivating and are interesting and pleasurable (Chapman 1997). **Aesthetic theory** has been applied by software developers in interface design, namely that the visual appearance of an interface needs to conform with design principles like symmetry, balance, emphasis, harmony, proportion, rhythm and unity (Lavie & Tractinsky, 2004). **Play** is the physical activity that encourages learning and creativity, develops and satisfies psychological and social needs, and involves aspects of competition and collaboration (Rieber, 1996). Play has been associated with increased frequency and satisfaction of system use (Atkinson & Kydd, 1997; Hartmann et al., 2008). Thus elements of play are intrinsic to engagement. **Information interaction** is specifically the process that people use in interacting with the content of a system, it provides the connectivity for engagement (Toms, 2002).

As an example of commercially oriented research, the following is an excerpt of a presentation by Mounia Lalmas (Yahoo! Labs), Heather O’Brien (University of British Columbia) and Elad Yom-Tov (Microsoft Research). It summarizes research in the field of user engagement, but with several important caveats (“assumes that web application are “properly designed””, “focuses on web applications that are widely used by “anybody” on a “large-scale””<sup>5</sup>) and does not offer guidelines “about “how” to influence user engagement” (Lalmas et al. 2013).

#### Three columns of user engagement of web-based services

- User feelings: happy, sad, excited, bored,...
- User mental states: concentrated, lost, involved,...
- User interactions: click, read, comment, recommend, download,...

<sup>5</sup> Lalmas, M., O’Brien, H., and Yom-Tov, E., 2013: MEASURING USER ENGAGEMENT. <http://www.dcs.gla.ac.uk/~mounia/Papers/WWWTutorial2013UserEngagement.pdf>

### Characteristics of user engagement

**Focused attention** – user must be focused to be engaged. Distortions in the subjective perception of time used to measure it. (Webster & Ho, 1997; O'Brien & Toms, 2008)

**Positive Affect** – Emotions experienced by the user are motivating – initial affective hook can include a desire for exploration, active discovery or participation (O'Brien & Toms, 2008)

**Aesthetics** – Sensory, visual appeal of interface stimulates, promote focussed attention – linked to design principles, e.g. symmetry, balance, saliency (Jacques et al, 1995; O'Brien & Toms, 2008), see remark 1.

**Endurability** - people remember enjoyable, useful, engaging experiences and want to repeat them. Reflected in e.g. the propensity of users to recommend an experience / a site/ a product (Read, et al., 2002; O'Brien & Toms, 2008)

**Novelty** - Novelty surprise, unfamiliarity and unexpected - appeal to user curiosity - encourages inquisitive behavior and promotes repeated engagement (Webster & Ho, 1997; O'Brien & Toms, 2008)

**Richness and control** - Richness captures the growth potential of an activity - control captures the extent to which a person is able to achieve this growth potential (Jacques et al, 1995; Ho, 1997)

**Reputation, trust and expectation** - Trust is a necessary condition for user engagement - implicit contract among people and entities which is more than technological (Attfield et al., 2011). see remark 2.

**Motivation, interests, incentives, and benefits** - Difficulties in setting up “laboratory” style experiments - Why should users engage? (Jacques et al., 1995; O'Brien & Toms, 2008)

Remark 1: Positively perceived aesthetics seem to produce a “halo effect”, i.e. when positive features of a particular item extend to the whole brand. A notable example is the manner in which the popularity of Apple’s iPod generated enthusiasm for the corporation's other products<sup>6</sup>. Research on the link between aesthetics and usability by Hartmann et al. (2008) and Sutcliffe (2007) suggest that aesthetics are an important determinant of user satisfaction and system acceptability and can override users’ poor usability experience, especially within more playful scenarios. In contrast, conservative menu based designs were preferred for more serious scenarios of use.

Remark 2: Reputation/identity relates to the identity of the website owner and the brand-product identity which can be projected by a consistent visual style (Sutcliffe, 2007).

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<sup>6</sup> [http://en.wikipedia.org/wiki/Halo\\_effect](http://en.wikipedia.org/wiki/Halo_effect)



It is important to state that *“appropriate and interesting content is widely cited to be a key factor in successful website design with services to describe the functions that aggregate into utility”* (Sutcliffe, 2007).

#### Quantitative data and metrics of user engagement

**Popularity:** Number of individual users, number of visits, number of clicks

**Activity:** Average number of pageviews per visit, average time per visit

**Loyalty:** Number of days and times a user visited the site, average time a user spent on the site

#### Qualitative data on user engagement

**Self-reported engagement:** questionnaires, interviews, reports, reaction cards

**Cognitive engagement tests:** using eye tracking, heart rate monitoring and mouse tracking

### 2.1.1. Commercial Studies

Searching for “User Engagement” on Wikipedia will present users with the article on Customer Engagement (CE). This reflects that the focus of an overwhelming proportion of research regarding user engagement (UE) is focused on the commercial sector. In addition, there is a lot of comment and opinion published on the subject, the majority of which is non-scientific, i.e. not based on studies.

Commercial studies mostly focus on a brand or brands and the users’ engagement with them. Conversion, i.e. turning a visitor to a website into a (paying) customer, is generally the aim. If an entity’s website is a major income factor, spending money on studying ways to improve income is a logical step to take. However, budget constraints apply to most if not all web-oriented organizations in the non-commercial realm, especially the cultural heritage sector.

Existing commercial studies are often hard to adapt to the non-commercial sector because they focus on conversion: “User engagement in the game industry or education have different characteristics” (Lalmas et al., 2013).

## 2.1.2. Non-Commercial Studies

For reasons explained above, noncommercial research on user engagement is rather uncommon. Two notable exceptions are:

### 2.1.2.1. Culture24

Culture24, a British charity, exists “to support the cultural sector to reach audiences across digital platforms”<sup>7</sup> and is government funded. Culture24’s project ‘Let’s Get Real’ is a “collaborative action research project to help arts and heritage organisations change the way they work and develop their impact on audiences”<sup>8</sup>, in other words, it not only helps cultural heritage oriented websites with measuring impact, but also tries to establish guidelines for enhancing user engagement. Participants in Let’s Get Real include the British Library, the British Museum, the Tate Gallery, and the Victoria & Albert Museum. The project completed the third of four phases in 2014. The reports for the first three phases are available for download<sup>9</sup>.

### 2.1.2.2. Digital Engagement Framework

A strategy for digital engagement in the cultural heritage sector was developed by Jasper Visser and Jim Richardson. They propose following a formalized digital engagement framework which includes all necessary steps from determining what an organisation wants to achieve with digital engagement to how to actually get there<sup>10</sup>.

“The Digital engagement framework helps you identify the value creation opportunities of digital engagement for your organisation and develop the strategies, processes and technologies to structurally engage your audience to maximize your co-created value.”

In Section 3 we propose adopting that framework.

### 2.1.2.3. Surveys Among Classics Students Related to the Use of Digital Resources

In the course of the EAGLE project, surveys among classics students were conducted. At the university of Bari in Italy, the survey was dedicated to a series of practical trainings in digital

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<sup>7</sup> <http://goo.gl/FWrO6W>

<sup>8</sup> <http://goo.gl/PmPhb8>

<sup>9</sup> <http://goo.gl/YVaHEj>

<sup>10</sup> Visser, J. & Richardson, J., 2013: Digital Engagement in Culture, Heritage and the Arts, 66p.  
<http://goo.gl/aDqeOu>



humanities involving digital resources like the Epigraphic Database Bari (EDB, Eagle Mediawiki).

Some relevant results:

About 50% of the students asked are willing to help editing the EDB, contributing translations to the Eagle Mediawiki, editing humanities related articles on Wikipedia as well as metadata editing of images on Wikimedia Commons. Furthermore, a majority is interested in courses on digital image enhancement, and 3d reconstruction of epigraphs. Generally, a high interest in practical introductions to IT-tools for the humanities was shown.

At three Romanian universities, the survey was dedicated to the students' general cultural horizon, e-learning platforms, and digital epigraphy focussed on museum exhibitions (Varga, 2014).

Some relevant results:

Romanian students are quite enthusiastic about having online access to a platform dedicated to Latin as a language and Roman culture in general. Questioned regarding virtual epigraphic museum exhibitions, they would like as much context information as possible about the objects (maps, links to online resources, monument reconstructions, architectural context, information on on stone/paint/carving techniques etc.) as well as technical features like rotating functions to examine visual details. A generalized result of the survey is that students demand classes in digital epigraphy (and general digital humanities) at Romanian Universities (Varga, 2014).

## 2.2. Theoretical Background of Best Practice

### 2.2.1. Introduction

According to theoretical considerations (see below), real best practice needs to be tested and proven within a context and their application results in a measurable improvement of a certain process - at least in economical context.

During research for this deliverable, the authors found quite a few interesting best practice guidelines that were proposed by scientists working in the field of user engagement, or are in use at various websites. Arnošt Veselý argues that *“a search for examples of working practices which seem to be superior (best practice)”* is a step in finding best practice guidelines.

This would indicate that if sufficiently big number of people in similar circumstances agree on what they consider to be the best way to achieve it, the procedure can then be labeled as a best practice.



This simplification, which at first glance looks good, excludes some major considerations regarding the development of best practice and the use of the described practices<sup>11</sup>:

- It implies that we actually recognize the best way of doing something. In most cases we don't. We might have developed some principles and good approaches based on experience – but this doesn't necessarily mean that this is THE best way of tackling a particular issue.
- We don't always know WHY something works, even if it was successful. This is important because if we don't know which part of an approach is key to making it successful, then it can be hard to replicate into other contexts.
- Use of this term can discourage us to look for ways of improving how we do things. All we need to do is follow the instructions, and so we don't need to think too much about whether the approach makes sense in our current context.
- The description of a practice is not the same thing as the practice itself. However we document it and whatever evidence we collect, it represents only a summary of what happened and will most likely miss out important “tacit” elements of what made a practice successful.

### 2.2.2. Definition of Best Practice Research

Best Practice Research (BPR), originally established in the 1980-ies in economics, is currently a popular and increasingly demanded approach for social, administrative and non-profit organisations. BPR is based on the idea that instead of formulating an abstract ideal state we want to reach, we should summarize what has been or is being implemented and is known to work. But currently there is no consensus on what BPR actually is and how it should be properly conducted (Veselý, 2011). Even the term “best practice” itself is sometimes used interchangeably with “good practice” and “smart practice”, in other studies those terms refer to completely different concepts.

There are various different definitions of BPR (summarized by Veselý (2011)) which have the following common features: BPR is a way of thinking, it is oriented towards constant learning, feedback, and reflection of what works and why, or even what does not work (Stenström and Laine 2006). “Good or best practice” definitions can be classified according to the following

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<sup>11</sup> <http://goo.gl/40058e>

criteria: functionality, process oriented, innovativeness and transformability (Tuominen et al., 2004). Veselý (2011) summarize the definitions as follows:

- The function-oriented definitions see good practice as a set or database of good ideas, irrespective of the ways they were put together (probably the most widespread in practice).
- The process-oriented definitions emphasize the uniqueness of the process, primarily seek to identify the best or optimal process for attaining the highest profit (in the case of businesses).
- The innovativeness and transformability-oriented definitions are oriented towards the implementation practices. Instead of looking for the best exemplar per se, they accentuate the identification of such practices that can lead to desirable innovations and changes in other places.

### **2.2.3. Phases of BPR Process**

The primary goal of BPR is to improve the working of a project consortium or institution, typically a business or a non-profit organization, by adopting certain principles of other institution(s) that appear to be more successful (Veselý, 2011). This statement implies the following two basic elements of BPR:

- The target (consortium or institution) whose performance needs to be improved and
- the source (consortium or institution) which provides inspiration.

To reach the above mentioned goal, the following phases are necessary (Veselý, 2011):

1. a clear definition of the goals of the target needs to be worked out, along with an analysis of reasons why those goals are not being attained, the basic questions are “what is going wrong?” and “why?”.
2. a search for examples of working practices which seem to be superior (best practice) compared to those in the target site. The basic question is “how?”.
3. as “best practice” identification is not sufficient by itself, the utilisation of an identified practice at the target needs an explanation why this practice works at the source and what the superior results are.
4. the conversion of the identified best practice to the target including an evaluation of the results.

#### 2.2.4. Systematic Approaches to Establishing Best Practices

As there are significant differences between the goals of profit-oriented businesses and non-profit organisations, Mayers, Smith & Martin (2004) distinguish two basic types of BPR:

- quantitative microeconomic BPR according to Bretschneider
- case study-based qualitative BPR according to Bardach

According to Bretschneider et al. (2005) the term “best practice” implies a way of action that appears better than any alternative ways of action and, at the same time, attains a defined goal. Their theoretical analysis led them to the conclusion that there are two necessary and sufficient conditions for identifying a best practice:

- completeness of cases included in comparison
- and comparability of those cases.

“The condition of completeness states that in order to truly identify a “best practice”, we must include all comparable examples from a given area; a sample survey (however representative) will not suffice. In the case of a sample survey (as the basis of statistical inferences about the population as a whole), a better case may exist outside the sample and the term “best practice” is misleading” (Veselý, 2011).

For example, if we want to identify the “best practice” in translation of epigraphic texts at latin classes, we must include all schools teaching Latin and use epigraphic texts for instruction for a certain region (e.g., Austria) to identify, describe and analyze “best practice”.<sup>12</sup>

“The condition of comparability states that examples in a given set are comparable in terms of actions (practices), outcomes and the contexts they exist in” (Veselý, 2011).

For example, if we try to identify a best practice of the methods of user engagement of web-platforms, are we supposed to include in one set non-profit and commercial websites, or are the functions of those types of websites so different that we better look for best practice within individual types of web-platforms or within individual project programs?<sup>13</sup>

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<sup>12</sup> However, given the narrow focus of the exercise, we may not be able to fully extrapolate knowledge derived from this example to other regions (Veselý, 2011).

<sup>13</sup> Which cases should we consider similar enough to be included in one set, and which ones should we not? Based on which criteria can we make sure that the set is complete (Veselý, 2011)?



According to Bretschneider et al. (2005), the most useful underlying method to test and evaluate best practice is production theory in economics. This theory is used to relate outcomes with a number of inputs, using various statistical procedures for a rigorous identification of the best case. According to the authors, the advantage of production theory models lies in the implicit acknowledgement regarding the existence of a formally discoverable relationship between inputs and outputs, which enables us to identify one **best example** in which the best possible process transforms inputs into outputs.

What exactly does “the best” mean? Based on what criterion or criteria can we tell that it is precisely School X where teaching Latin with the use of epigraphic texts for instruction is the best? Whichever criteria we chose, the choice itself is not an objective one.<sup>14</sup> Also, the definition of what counts as inputs and outputs is highly subjective, and in practice, it tends to be determined by what we are or aren’t able to measure (Veselý, 2011).

According to Bardach, the term “best practice” is misleading because we are “*rarely certain that we have really identified the best example of all those options which might solve the problem we are facing or the goal we are trying to fulfil*” (Bardach, 2000). Taking all options of non-profit organisations (see above) into consideration is practically never possible. So the result of this type of research is at best “good practice” (Bardach, 1994).

Therefore Bardach (2000) introduced the term “smart practices”, he suggests the existence of a smart or interesting idea in a given practice, one that deserves attention. It is precisely this “smartness” that the researcher should look for, study, verbalize and evaluate for applicability in the context of the target site.<sup>15</sup>

A example of “smart practices” with almost zero cost might be the establishment, interlinking and utilization of diverse social networks by means of new communication technologies. Their administration is almost cost-free, while their positive effects may be high (Bardach 2000).

Bardach does not propose any precise definition or detailed set of instructions for formulating “smart practices”. He simply considers a “smart practice” to be anything that “aims to exploit, or take advantage of, some latent opportunity for creating value on the cheap” (Bardach, 2000).

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<sup>14</sup> To illustrate the concept of Bretschneider et al. (2005) using this example, we would in any case have to clearly define both inputs (e.g., students’ input language skills or motivations for language study) and outputs (e.g., ability to carry a translation or to comprehend a scholarly text) in order to identify a best practice.

<sup>15</sup> One of the characteristics of “smart practice” is “getting something for nothing”. In contrast to the popular belief that “there’s no such thing as a free lunch”, Bardach wants to demonstrate the existence of such practices that cost nothing or relatively little and are highly beneficial nonetheless (Veselý, 2011).



Bardach, like other social scientists, has the problem with identifying a “causal theory” behind a defined smart practice. Surrounding that, Bardach introduces the term mechanism (see also Elster, 1998). He declared: “a mechanism is an explanation of a phenomenon at the medium level of abstraction. It is less abstract than general “laws” but more abstract than mere descriptions. Examples of mechanisms include the market processes through which the price equilibrium is achieved”. (Bardach, 2000 in Veselý, 2011)

The potential of a smart practice (Bardach uses the metaphor “reservoir”) is a kind of energy or potential within social reality that can be tapped. Reservoirs are mostly free, provided by the nature. All we need to do is learn how to use them.

A mechanism, which is the principal element of every “smart practice” is a way of tapping and exploiting such a “reservoir” - which sounds a bit esoteric. The practice is always surrounded by an institutional, political, economic and interpersonal context that must be taken into consideration when “smart practice” is transferred from the source site to the target site.

The transfer of an experience from one site to another, Bardach calls “extrapolation”. “Instead, one should speak of creative and flexible application in the target site of a carefully examined mechanism discovered in the source site. From this perspective, extrapolation is the process of learning from mediated experience and creating practices that conform to new circumstances” (Ongaro 2009, 2).

Ongaro (2009) defined an extrapolation protocol for the application of Bardach’s qualitative approach to non-profit organisations.

1. Identify the function to be performed: what is the function that the practice has made it possible to achieve

- example: mobilize the internet community for contribution and collaboration...

2. Define what exactly the practice is about

- example: setting to work *loci* for empowering communication channels between scientist and the general public

3. Describe the practice, by answering the following two questions:

- How does the system operate?
- How does the practice try to take advantage of the way the system operates (design and innovation dynamics)?

4. Identify all the effects of the practice



- Main effects of the practice (results)
- Variations of the practice (what accounts for unusually satisfactory performances, what accounts for possible breakdowns?)
- Possible side effects

5. Define the key ‘process context factors’ under which conditions the practice works.

- The causal mechanisms that have made it possible for the practice to work in that specific context must be identified so that the practice may be geared to the recipient context (in fact, ‘universal’ practices, independent of technical, political, and environmental context are very rare; moreover, very likely they have already been detected and are already in use)

Bardach acknowledges that it may be difficult to characterize some “smart practices” because they can be highly complex and multidimensional. Therefore, they cannot be reviewed in a few sentences or paragraphs. Instead, they consist of a set of diverse general ideas that are not ordered hierarchically (Vesely. 2011).

### 2.2.5. Comparison of Quantitative and Qualitative Approaches

Bretschneider	Bardach
Oriented towards the identification of an existing exemplar (organisation) which has a best practice. A. rigorous selection of exemplars using statistics.	Search for a smart practice that fits the target site via a case study
The approach is based on production theory - comparison between inputs and outputs	The approach assumes a mechanism that must be “revealed” which can be “extrapolated”
Suitable for processes that are relatively simple with easy quantifiable inputs, processes and outputs.	Bardach and followers give the exact way of conducting “smart practice” analysis in order to make it useful for the target site (Ongaro, 2009).

### 2.2.6. Limitations of Best Practice

In the literature of the last 30 years, BPR tends to be criticized more often than defended, yet the popularity of BPR does not seem to have declined. This is, above all, because of BPR’s unique ability to connect the worlds of research and practice (Vesely, 2011).



- BPR lacks theoretical foundations and pays little attention to discovering the reasons why a given practice works. The assumption of the quantitative approach is “let’s just copy what someone else did and see what happens” (Myers et al. 2004).
- An important line of criticism states that BPR does not check internal validity, which implies that BPR methodology does not guarantee that what we know about the given case is really true.
- A relevant critique of BPR is its low level of external validity, which mean “it lacks the extent to which we can generalize the conclusions of our observation” (Nekola, Veselý, and Ochrana 2007).
- BPR is insufficiently critical and rigorous (Overman & Boyd, 1994), it usually focuses on retrospective description of successful exemplars only.
- It is considered that BPR is a kind of hybrid between scientific and practical approaches because it is not based on a uniform paradigm, whether positivist or interpretative. As a result, BPR does not apply any generally accepted set of rules.

### **2.2.7. Good Practice of BPR**

To overcome the above mentioned disadvantages of BPR, the following improvements are currently discussed and summarized by Veselý (2011):

- Establishment of a mixed research design that combines quantitative and qualitative approaches, i.e. the use of the quantitative approach to identify where “good practices” possibly exist and a qualitative research concept to conduct in-depth analysis of the selected exemplars be assessed in view of the target site.
- To increase transferability, we should clearly define the purpose, i.e. what is to be achieved. This prevents us from identifying exemplars of “good practice” per se, and makes our research effort more purposeful. Whether practices are “good” should only be assessed in view of the target site.
- It might be important to avoid mere description of successful cases. “Good practice” exemplars should help us uncover underlying mechanisms and thus formulate a theory of why they work. In the words of Kurt Lewin (1951) “nothing is as practical as a good theory” .



- Research should not be limited to positive examples, and we should also analyze “unsuccessful” cases where the implementation of a policy or program failed, in order to think about why that happened.
- “Good practice” research should not end by publicizing what appears as good, or by implementing such exemplars in the target site. If we want to know whether an exemplar of “good practice” really is “good practice”, we must evaluate the effects of its implementation elsewhere.

## 3. The EAGLE Project

The following best practices in user engagement are not an exhaustive ‘99 steps to a perfect epigraphy website’ guide, nor can they be. Instead, they focus on basic and important considerations which are also applicable to other projects from the cultural heritage sector.

It is also necessary to note that the World Wide Web is in constant flux. Resources come and go, or change - sometimes beyond recognition - breaking a webmaster’s strategies in the process. An example would be Google Analytics (GA), one of the most important tools for a site owner. GA used to be able to tell the owner what exactly users were searching for when they found his website. Since changes introduced by Google in 2011, this is no longer the case, search terms are now listed as “(not provided)”.

In addition, user behaviour also changes over time, sometimes quite quickly. The most prominent example of this would be the rapidly increasing use of mobile devices (smart phones, tablets) to access websites. This makes it practically unavoidable to change code on a (self-built) website to accommodate mobile use.

High cost for development can be avoided by making use of free and open source software (foss). For most needs of a cultural heritage project, foss software exists (blogging, etc). Most notably, this includes MediaWiki, the software that Wikipedia runs on. Tools like a mobile front-end are also provided as extensions to a MediaWiki installation. Another extension called Wikibase allows for collaborative editing of structured data. The EAGLE project is using MediaWiki and Wikibase to add and curate transcriptions/translations.

**Best Practice recommendation:** Use of free open source software (foss) will offer significant saving potential to projects from the cultural heritage sector. This is true for initial investment as well as for costs incurred by the need to keep up-to-date.

### 3.1. A Strategy for Sustainable User Engagement

We propose the best way to define a strategy for user engagement is following a proven framework suitable for non-profit organisations working in the field of cultural heritage.

By developing objectives, strategies and visions for a web resource, one has to be at the frontline of web developments to follow somehow predictable “sustainable trends”. But be aware of the

fact that the WWW is in constant flux and rapidly generates so called “disruptive trends” which may force you to adapt your organization's vision and objectives.

The proposed framework is a synthesis of current research and expert opinions on user engagement for non-profit organisations from the cultural heritage sector, authored by Jasper Visser and Jim Richardson<sup>16</sup>.

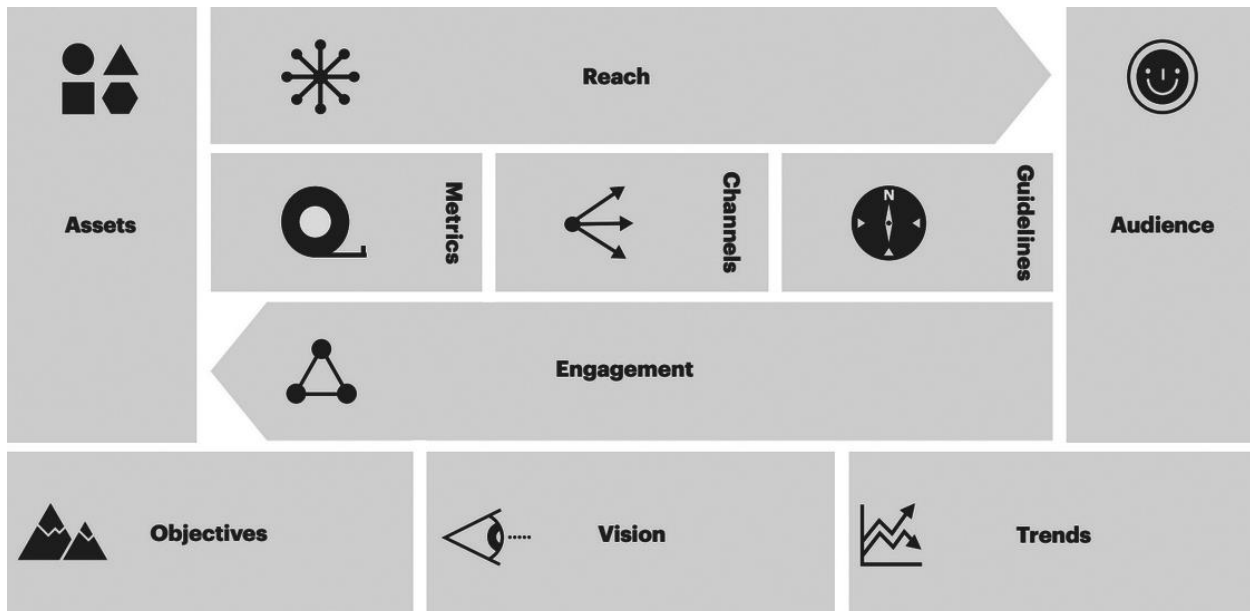


Figure 3: Framework of user engagement development (Visser & Richardson, 2013)

## Block A - The Organisational Basis

This core building block is the foundation on which a strategy can be built. It consists of the basic elements **objectives**, **vision**, and **trends**. Objectives and visions are usually internal factors of an organisation or, within EU-projects, predefined in the project application. Investigations of trends require looking beyond the limitations of your project but are the key for sustainability.

Objectives	Related questions
are the measurable and specific things you want to achieve with digital engagement.	<ul style="list-style-type: none"> <li>What do you want to achieve with digital engagement?</li> <li>What are your organisation-wide goals and</li> </ul>

<sup>16</sup> <http://digitalengagementframework.com/>

	<p>objectives?</p> <ul style="list-style-type: none"> <li>What do you need to achieve to make the entire organisation more social?</li> </ul>
<p><b>Vision</b></p> <p>tells you what your future looks like.</p>	<p><b>Related questions</b></p> <ul style="list-style-type: none"> <li>Why does your organisation exist?</li> <li>How will your organisation be different in 15 years time because of digital media?</li> <li>How will you make the world a better place?</li> <li>What will people say about you in the future?</li> </ul>
<p><b>Trends</b></p> <p>describe developments that affect your organisation, its audiences, assets and vision.</p>	<p><b>Related questions</b></p> <ul style="list-style-type: none"> <li>What are important developments in your industry, locality, organisation and market segments?</li> <li>What new technologies and media do you see coming?</li> <li>How will society be different in 5 years time?</li> </ul>

## Block B - Assets and Audiences

The main point of an engagement strategy is to bridge the gap between the **assets** that an organisation can provide to the general public and the people (**audience**) who might be interested in them. By playing it smartly you can even have your audience assist you in determining your choice of assets (for example by conducting online surveys).

<p><b>Assets</b></p> <p>are the valuable or special things, people or qualities you own or do. We distinguish tangible and intangible assets.</p>	<p><b>Related questions</b></p> <ul style="list-style-type: none"> <li>What makes you stand out?</li> <li>Why do people choose you?</li> <li>What do you sell?</li> <li>What are your values?</li> <li>What can you give away?</li> <li>What experience do you offer?</li> <li>How are you different from your competitors?</li> </ul>
<p><b>Audiences</b></p> <p>are the people you exist for, both those you reach and those you don't</p>	<p><b>Related questions</b></p> <ul style="list-style-type: none"> <li>Who do you reach?</li> <li>Who visits you frequently?</li> </ul>

reach yet. We like to make them specific.	<ul style="list-style-type: none"> <li>• Who have a formalised relationship with your organisation?</li> <li>• Who only knows about you?</li> <li>• Who knows about you, but doesn't visit you?</li> <li>• What new groups would you like to reach?</li> <li>• What are the specifics of each group?</li> </ul>
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### Block C - Reach and Engagement

The elements of this block are **reach** and **engage**. *"You need to reach people before you can engage them and you need to engage people before they can help you generate value"* (Jasper & Richardson, 2013). The concepts behind **reach** and engagement define how your assets are presented to audience and how to first get the audience (existing and new) interested, then involved and finally encouraged to participate (contribute).

<b>Reach</b> is about making a first connection with new audiences or existing audiences for a new activity or channel.	<b>Related questions</b> <ul style="list-style-type: none"> <li>• Where can you find your new audience (online)?</li> <li>• What communities are they part of?</li> <li>• How do you relate to these communities? Which assets can you offer your new audiences?</li> <li>• How can you connect with them?</li> </ul>
<b>Engagement</b> means developing the relationship between you and your audience. Only reached audiences will engage.	<b>Related questions</b> <ul style="list-style-type: none"> <li>• What can you offer your audience to stay interested?</li> <li>• How can you involve your audience in what you do?</li> <li>• How can you activate them to become an active advocate for your organisation?</li> <li>• How can you work together to co-create value?</li> <li>• How can you build your communities?</li> </ul>

### Block D - Technologies and Processes

This block defines what needs to be done to make online user engagement happen - internal **guidelines** for the organisation, **channels** as dissemination vectors and **metrics** to monitor results.

<b>Metrics</b> help you measure success and monitor progress	<b>Related questions</b> <ul style="list-style-type: none"> <li>• What are your key performance indicators?</li> <li>• What is success?</li> <li>• How will you report?</li> </ul>
<b>Channels</b> are where you share your content, reach and engage people.	<b>Related questions</b> <ul style="list-style-type: none"> <li>• Which technologies, media and tools will you use?</li> <li>• What content will you share?</li> </ul>
<b>Guidelines</b> tell you how we will work	<b>Related questions</b> <ul style="list-style-type: none"> <li>• What are your core values?</li> <li>• Who is responsible for what?</li> <li>• How do you respond to unexpected developments?</li> </ul>

## 3.2. EAGLE and Block A - The Organisational Basis

As is mentioned above, this block is directed at organisations without a clearly defined objective. The EAGLE project's objectives were defined in the DoW and listed in this document in chapter [1.1.1.](#)

## 3.3. EAGLE and Block B - Assets and Audiences

### 3.3.1. Assets

EAGLE's assets are a huge number of Latin and Greek inscriptions, their transcriptions, a growing number of translations, and pictures of the material support carrying said inscriptions.

### 3.3.2. Audience: Users of Inscribed Materials

Some user engagement activities should be tailored to user groups which have been identified. Possible users groups who are interested in epigraphic content - and what their main interest could be - are as follows.



### 3.3.2.1. Professional (Academic) Users

Currently, the main group of users of digital epigraphic resources is professional scholars and their students. These scholars need a reliable resource, a complete and/or properly defined corpus.

In addition, there are academics from various fields who may need information about inscriptions for their research.

**Best Practice recommendation:** Provide the most comprehensive database that is achievable.

### 3.3.2.2. Teachers and Pupils

A second group of users are pupils and their teachers (see [Vienna school project Chapter 4.2.](#)). To pupils at a school, studying an inscription is an unusual activity. Indeed, there are fun aspects in the work of the epigraphist which can encourage students of all ages in schools. For example, there are projects in Slovenia involving primary school children with inscribed material, but also secondary school students who have latin in their curriculum who can see a practical use of their knowledge through the active engagement with an inscription and all the parts of its analysis.

To accommodate this group, the AshLI project (see [Chapter 4.4.](#)) provides versions of inscriptions that are simplified so as to make translations into english by pupils easier.

**Best Practice recommendation:** Provide online information on the translation and interpretation of texts as well as commonly used Latin formulas and abbreviations.

### 3.3.2.3. Museum Visitors, Tourists

This group of users is a more volatile one, often walking up to an inscription, giving it a glance and moving on. The way in which epigraphic documents are presented to the public is an essential factor. On the other hand, presentation alone is not enough - means of interaction must be presented so as to involve the public with this kind of content, which is admittedly less attractive than picturesque statues. For this group of users, the existence of an interactive and multilingual application may be an encouragement to take a second look. The information

offered must be contextualized. Strategies must therefore be developed which provide access to the digital resources describing an inscription, providing a translation as well as historical contextual information - see the Burgos Museum project (see Chapter [4.1.](#)).

Tourists who do not visit museums could benefit from strolling along a pathway featuring publically visible inscriptions, guided by a downloadable application for their mobile device. One such tool is the EAGLE-Platform's Flagship Storytelling Application.

**Best Practice recommendation:** Provide online resources (multimedia content, mobile applications, etc.) that can be used by museums et al. to increase interest in epigraphic material.

## 3.4. EAGLE and Block C - Reach and Engagement

### 3.4.1. Wikimedia Foundation Projects

Authors who contribute to articles on Greek and Roman ancient history on Wikipedia need images, transcriptions and translations of inscriptions to enrich articles.

EAGLE has fostered a tight integration of its collection with Wikimedia projects through publication to Wikimedia Commons. Putting content on Wikimedia Commons is a way of engaging users with EAGLE content, since it hugely increases the visibility of the resources.

The category "Media Contributed by EAGLE"<sup>17</sup> is defined as media curated or uploaded by the EAGLE consortium (which have a template to EAGLE\_project to record if a photo has been uploaded from the EAGLE project). Many of them were already in Commons but they were scattered and unrelated before having been categorized and enriched by EAGLE. Almost half of the images included in this category have been categorized following the methodology described in D2.1, D2.2.1 and D2.2.2, and have been presented in several occasions in the project's plenary and public events. Additional categories and links to the databases have been added so that users of these images can retrieve further and up to date information from the archives.

The usage statistic of the provided media show that between February 2014 and February 2015, there was a total number of 15,226,019 pageviews.<sup>18</sup> These figures take into account not only

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<sup>17</sup> [https://commons.wikimedia.org/wiki/Category:Media\\_contributed\\_by\\_EAGLE](https://commons.wikimedia.org/wiki/Category:Media_contributed_by_EAGLE)

<sup>18</sup> <http://goo.gl/j58vtm>



the usage the photos uploaded by the EAGLE project, but of all photos of inscriptions in Commons which have gathered and enriched through the cooperation between EAGLE and the Wikimedia team. This set of statistics, freely and spontaneously produced for the project by the Wikipedia community, is another important sign of real engagement with external users as they demonstrate how users and developers who got interested in the work done in EAGLE have been attracted and contributed.

The software used for uploading large numbers of media files to Wikimedia Commons is the GLAMWiki Toolset<sup>19</sup>, developed by Wikipedia and Europeana to assist Galleries, Libraries, Archives, Museums (GLAM). The software was planned with 2 goals: ‘Creating a GLAM upload system to Wikimedia Commons’ and ‘Report on requirements for usage and reuse statistics for GLAM content’.

EAGLE items on Wikimedia Commons are being curated with the addition of links to databases (e.g. EDR, LVPA, etc), content checking and categories implementation. A group of 5 users is being involved in Italy via the cooperation of local associations ([rodopis.org](http://rodopis.org)) to perform this task and expand it.

The effort on content curation in wikimedia projects and in the EAGLE MediaWiki is supplemented by the integration of presentations in workshops. A Wikimedia Commons Edit-a-thon<sup>20</sup> was carried out in Ljubljana (see Chapter 4.7.), in which further users were trained to use Wikimedia Commons syntax and to get a better idea of the purposes of this repository of media while contributing to the harmonization of categorization which is currently often very inconsistent (see D2.2.1 - 6.2 about the methodologies and practices suggested for content curation).

### 3.4.2. Engaging the General Public with Latin and Greek Inscriptions

The content of inscriptions is studied and interpreted by highly specialized scientists and their students. Without interpretation and explanation, a Latin or Greek inscription will often be inaccessible and incomprehensible to the general public. Furthermore, inscriptions often are associated with figurative representations (grave monuments, etc.) - the interpretation of the inscription needs to be done within the context of the whole monument. The academic

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<sup>19</sup> [http://commons.wikimedia.org/wiki/Commons:GLAMwiki\\_Toolset\\_Project](http://commons.wikimedia.org/wiki/Commons:GLAMwiki_Toolset_Project)

<sup>20</sup> An edit-a-thon is a special type of meetup to improve Wikipedia. It is usually offline and focused on a specific encyclopaedic topic.

community is aware of existing digital resources and will benefit from the innovations of the EAGLE portal (WP5, T5.2) and the Flagship Storytelling Application.

### 3.4.3. How Can Inscriptions Be Disseminated to the Public

In her lecture at the Ljubljana event in February 2014, Silvia Orlandi pointed out that “Epigraphy can be fun!” and showed the audience how even on unrelated website there can be inscriptions and how each stone has an interesting story.

Traditionally, most scientists were well versed in Latin. Today, within the research community (outside of a few specialist fields), this level of knowledge can not be assumed to exist any more. Also, even being able to read Cicero or Demosthenes will not necessarily enable you to understand inscriptions with their wealth of abbreviations and “coded” language.

*“A translation is the easiest step towards making a text accessible in terms of reading the text and having a first interpretation of it.” (Löser, 2014).*

**Best Practice recommendation:** Providing translations is a necessary step in making epigraphic texts more accessible. Consider adding explanations for wordings/phrases that aren’t easily interpreted by the general public.

### 3.4.4. Putting Inscriptions in Context

*“Don’t expect the public to be excited by inscriptions in isolation. You may need to combine them with other forms of evidence and activities which illustrate the same phenomenon.”*

The Ashmolean Latin Inscriptions Project AshLI (Masségia, 2015)

Inscriptions are often associated with figurative representations or part of architectural elements. Traditionally, a monument featuring both is interpreted separately by two disciplines: epigraphy and archaeology (see e.g. [UBI ERAT LUPA](#) and [Arachne](#)). It is therefore very important to curate and enrich the content to be sure to include all the information that is available around it.

Storytelling represents a useful way to contextualise inscriptions, by giving to the users the possibility to create multimedia narratives featuring epigraphic content, enrich them linking to other related resources and share them on the web. In EAGLE, a specific task is dedicated to the implementation of a Flagship Storytelling Application (see section 6.1.3 and deliverable D5.4).



For the engagement of non-specialist users, the following should be considered:

- The inscriptions on their own are of little historical impact, but put in a larger context they offer insights into the Roman world, its commemorative habits, social hierarchy, economic networks, uses of literacy, etc.
- Furthermore, inscriptions often are associated with figurative representations (grave monuments, etc.) - the interpretation of the inscription needs to be done within the context of the whole monument.

**Best Practice recommendation:** Include the (archaeological, historical, social, etc.) context of an inscription in order to make epigraphy more attractive to the general public. Going above and beyond a static web page can attract more users to your resources.

### 3.4.4.1. An Example for Offering Context

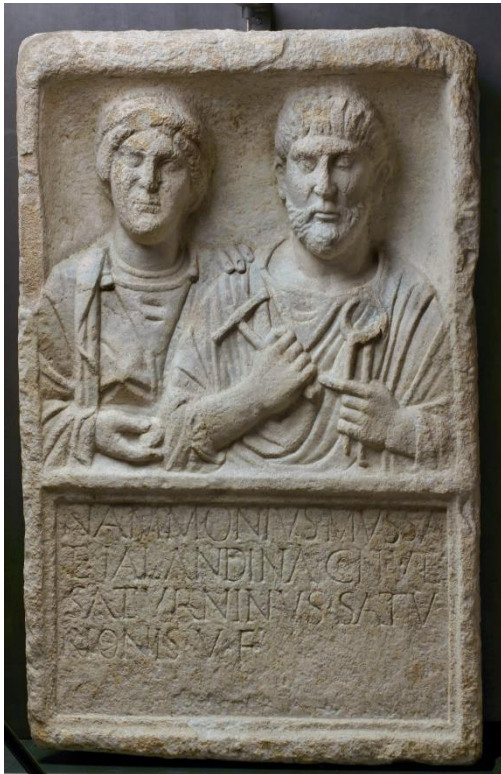


Figure 4: The gravestone of Nammonius Mussa from the municipium Flavia Solva (Austria), [LUPA Nr. 1230](#)<sup>21</sup> displays an inscription and an upper niche with a portrait.

The Inscription is in memoriam of Nammonius Mussa, his wife Kalandina and Saturnius, son of Saturnio.

*Nammonius Mussa  
et Kalandina con(iux) v(iva) et  
Saturninus Satu  
rionis (filius) v(ivus) f(ecerunt)*

"Nammonius Mussa and his wife Kalandina erected (this monument) in their lifetime together with Saturninus, son of Saturio".

There is no information about the relation of the married couple to Saturnius nor the profession of Nammonius Mussa. The names of the couple allows (according to the [EDCS](#) epigraphic database) the interpretation that both were natives of the Roman province of southern Noricum.

#### **Additional Information Provided by the Portrait:**

The dress of the woman - a woollen cap and her cape - confirms her provenance. The dress of the man is typical for a craftsman. He holds tools - a delicate hammer and pliers - which point to him being a smith working with precious metals.

**Further Information** is provided by the rims of the 20 cm strong marble slab which have holes for dowels and clamps. This indicates that the slab was part of a larger monument

<sup>21</sup> <http://www.ubi-erat-lupa.org/monument.php?id=1230>

consisting of a lateral relief bearing slabs, a base and a pyramidal top. The material is marble, either from the Pohorje Mountains, Slovenia, or from Gummern, Austria. Those marble quarries are 70 km or 200 km away from the site of use - costly transport of expensive material.

An interpretation of only the inscription by itself would miss important information provided by the object in its entirety.

The tools held by the male figure in the relief gives us his occupation as a smith, the clothing of the female yields the couple's provenance. The material used (marble) suggests that Nammonius grew rich in his profession. The former mounting of the stone suggests that Saturnius Sato was the head of the family (*pater familias*) of an extended household, including his family, craftspeople, scribes, freed slaves, slaves etc. - a group that included Nammonius and his wife.

#### **3.4.4.2. Interpretation of an Inscription**

In the course of the Ashmolean Latin Inscription Project (AshLI)<sup>22</sup> (see also [4.4.](#)), interesting stories about Roman inscriptions are published on a blog. The following is presented as an example giving a comprehensive interpretation of an inscription:

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<sup>22</sup> <http://www.ashmolean.org/ashwpress/latininscriptions/>, webpage visited on 2015-02-16





Getting rid of Geta – a scruffy inscription concealing a dark deed<sup>23</sup>

How Roman Britons kept on the good side of a bad emperor

In 1672, a Roman altar was found on the south bank of the River Tyne at South Shields. Measuring over a meter in height, it had images of sacrificial tools and a wine-mixing bowl carved into three of its sides, while on top was a dish-shaped hollow (the *focus*) which once held the fire that sent burnt offerings up to the gods.

On the front of the altar is an 11-line inscription in Latin. In 1683, Martin Lister, the physician and naturalist, made the first attempt at reading it, but was disappointed to find that large sections of it were illegible.

Over the next 300 years, academics and enthusiasts worked on the stone, picking out new words and making corrections, until the text made sense. As you can see in this series of drawings, there were lots of changes along the way:

Figure 5: Ashmolean ANChandler.3.3, on permanent loan at Arbeia Museum (South Shields)



Figure 6: Comparison of previous readings, assembled by Paul Bidwell (2014).

<sup>23</sup> <http://goo.gl/HnwXnm>



In 2009-10, two scholars from the University of Mainz, Björn Brecht and Bruno Kessler, scanned the image surface to reveal the remaining text, allowing Paul Bidwell, Head of Archaeology at Tyne and Wear Museums, to produce a near-complete reading. Today, we think it reads something like this:

Latin:

dis || conservato/rib(us) ° pro salu(te) / imp(eratoris) ° C(aesaris) M(arci) Aurêl(i) / Antonini / Aug(usti) Brit(annici) Max(imi) / [[et imp(eratoris) C(aesaris) P(ubli) Sep(timi) Getae Aug(usti) Brit(annici)]] / [n(umerus) [?] L[u]g[udun]ens(iu)m /ob reditu(m) || v(otum) s(olverunt)

English:

‘To the preserving gods for the welfare of Emperor Caesar Marcus Aurelius Antoninus Augustus Greatest Britannicus ~~and of Emperor Caesar Publius Septimius Geta Augustus Britannicus~~. The corps of the Lugudunenses fulfilled their vow for their return.

The Invisible Man

Part of the reason that Lister had found it so difficult to read the inscription was because someone had deliberately erased a large section of it, three-quarters of the way down. He thought that perhaps that it had originally recorded the names of the people who set up the altar. But Roman history suggests a different story.

The first name on the stone, Emperor Caesar Marcus Aurelius Antoninus Augustus Greatest Britannicus, is the official title of the emperor we know better by his nickname ‘Caracalla’. Caracalla was the eldest son of the emperor Septimius Severus, and father and son were joint rulers when they came to Britain in AD 211. Their plan was to extend Rome’s control over the northern parts of the island.

But when Septimius Severus died unexpectedly at York in AD 211, Caracalla’s younger brother Geta was promoted to fill his father’s place and the two brothers were proclaimed joint emperors by the Roman army. It was an arrangement that wouldn’t last long. Before the year was out, Caracalla had Geta murdered and took sole control of the empire.

Political Tipp-Ex

As a demonstration of his absolute power, Caracalla decreed that all traces of his younger brother should be erased – a process that we now call a *damnatio memoriae*. On our altar from South Shields, Geta’s name has been intentionally scratched away. These erasures were carried out all over the empire as gestures of allegiance to Caracalla. A Roman painting from Algeria, now in the Staatliche Museum in Berlin, shows how Geta’s face was even rubbed out of a portrait of the imperial family.

One of the strange things about these official erasures is that they often draw more attention to the alteration than if the stone or painting had been left alone. It’s unlikely that the process was

ever intended to completely wipe out all traces of a person, but rather that these sometimes messy erasures were meant to stand out, and remind everyone who the winners and losers were.

Luckily for us, despite the erasure, the all-important letter G for ‘Geta’ has survived, precisely in the place we would expect it.

#### Dating by disasters

Although the inscription doesn’t have a date in its text, we can work it out from other events. The stone calls both brothers ‘emperor’, so it must have been set up after their accession on 4<sup>th</sup> February 211 (a fixed start point for dating we call a *terminus post quem*). The fact that the altar originally included Geta’s name means that it must have been set up before his death in February 212 (an end-point we call a *terminus ante quem*). Combining these two historical dates, we can narrow down the altar’s date to the twelve-month period in between.

#### Up-to-date and out of trouble

The last line of the inscription gives us some idea about why the Lugudunenses (the local community at South Shields) set up the altar. We’re told that they had made a promise to set up an offering to celebrate the sibling emperor’s ‘return’. Very probably this means their safe return to Rome from Britain. The Roman historian Herodian tells us that Caracalla and Geta carried their father’s ashes back to Rome via Gaul. Perhaps South Shields was even the start point of their journey.

Roman Britain is sometimes thought of as a far outpost of the empire. But this altar shows us that the people in South Shields in the third century AD were keeping up-to-date with news from Rome. They had word of the two brothers’ safe return to Rome before setting up their altar, and later they received news of Geta’s *damnatio memoriae* and acted on it, just as the Roman community in Algeria did. Tyneside was as much a part of the Roman empire as any other, and the people there knew how important it was to stay on the right side of their unpredictable emperor.

**Best Practice recommendation:** Keep in mind that your audience is not only fellow scientists, and adjust your language accordingly. Historical background information is not universally known, it needs to be provided to the reader, so as to make your stories accessible to all.

## 3.5. EAGLE and Block D - Technologies and Processes

### 3.5.1. Dissemination Channels

Initial doubts have been put forward regarding the use of social networks like Facebook, Twitter, Pinterest, Google+ and LinkedIn to enhance user engagement, as it takes enormous dedication to build and maintain any kind of followership.



However, the efforts and experienced management of EAGLE's profiles on these networks by the WP6 team, especially UNIROMA1, has brought astonishing results in continuous growth - as of Q1 2015, on Facebook, the EAGLE page<sup>24</sup> has collected about 1500 likes, the Twitter account<sup>25</sup> has over 500 followers.

The technique used has been that of sharing content and activities (a task that is supported by various epigraphy resource providers on facebook, e.g. EDB, EDR, Portugal Romano, Géza Alföldy), keeping the pages alive and in continuous interaction with followers. To match content across all the platforms used by EAGLE, a social media management tool is in use, which allows to plan and organize postings.

It is already observable from statistics that a considerable part of the traffic to the current portal comes from social networks.

**Best Practice recommendation:** Increase traffic to your main resource (portal) by using appropriate social media channels (facebook, twitter et al.).

A viable strategy for social media engagement is to define your audience, then use unique content with appeal to this segment to keep your followers engaged. If you can identify several groups of user, develop a strategy to keep each of them happy (and therefore engaged).

### 3.5.2. Cost benefit analysis of social network services

*“Social media engagement isn't about spending money; it's about what you do and say. It's about having the right content in the right channels to engage the right audience in the right way” (Finis et al. 2010).*

However, maintaining social media activities is not for free. Costs can be itemized as follows:

- Staff investment in maintaining, updating and creating content
- Staff investment in monitoring and reviewing performance
- Direct costs of social media and software tools used.

<sup>24</sup> <https://www.facebook.com/EAGLEuropeana>

<sup>25</sup> [https://twitter.com/Eagle\\_Project](https://twitter.com/Eagle_Project)



A survey conducted among 17 UK based cultural heritage organisations, some of which have budgets comparable to large EU-projects, gave the following numbers:

Number of staff involved in maintaining, updating and creating content:

- 1-4 members 76%
- 5-8 members 24%

Number of average hours per week spent:

- 1-4 hours 47%
- 5-8 hours 41%
- more than 13 hours 12%

The range of annual costs is between 0 and 14,000 Euros, on average 2,300 Euros.

A metric for the success of social media engagement is popularity, which is the number of online users for each channel. It is often assumed that there is a direct correlation between social media popularity and conversion into visitors to the main webpage, but popularity in social media was found to have little relationship to engagement (Finis et al. 2010). This may be attributable to activities on social networks staying within that network (e.g. conversations on facebook).

**Best Practice recommendation:** To increase and maintain user engagement establish a social channel (chat, message board...) at your website and link that with your social media activities. If you run MediaWiki software, that function is already included (discussion pages, possibility to run a community portal etc).

There are various benchmarking tools that may help evaluate engagement with your social media channels. Due to frequently changing terms and conditions social networks operate under, these tools come and go. There is no long-term recommendation possible regarding which tool is best used.

Using social media channels to generate interest in your assets is a long-term strategy. If activities on social media channels stop, users will disperse.

**Best Practice recommendation:** Social media engagement is not for free. In order to warrant sustainability in social media efforts, a small budget should be allocated to maintain social media activities after an EU-project has been completed.

### 3.5.3. Metrics

Metrics are an important part of not only getting information about your users, but also of trying to judge the success or failings of campaigns you may be running on social media channels. Arguably the most valuable tool in measuring user behaviour is Google Analytics, a free tool provided by Google which gives you detailed statistics about visitors to your website.

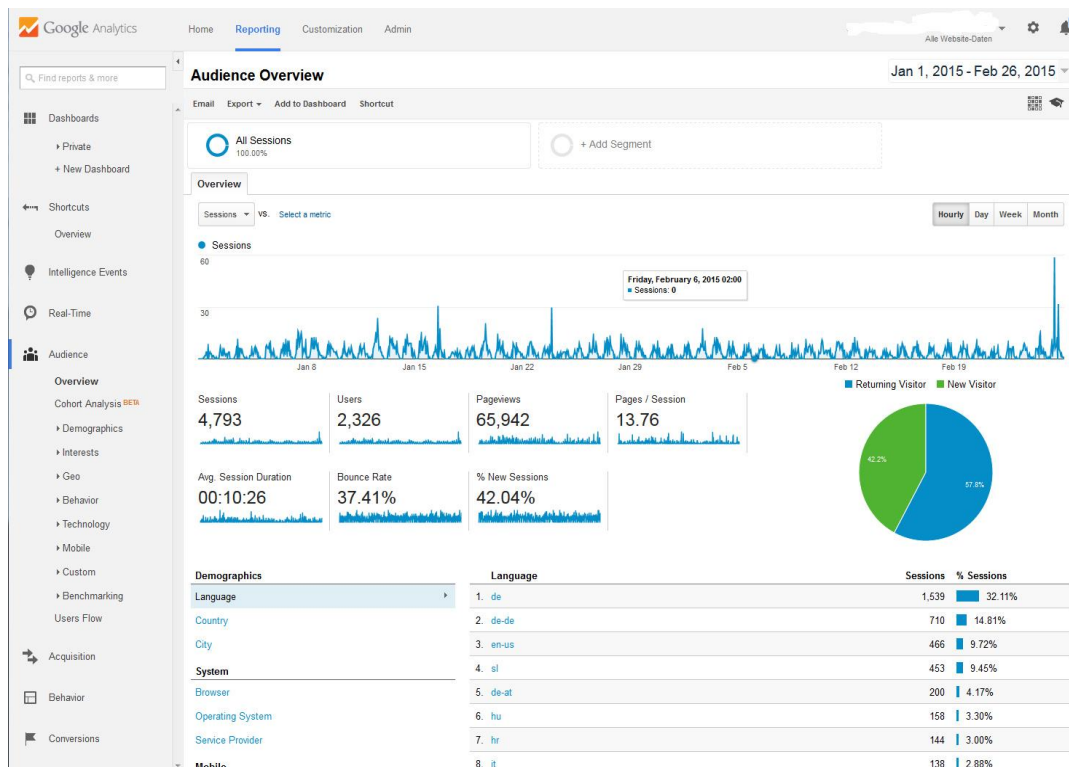


Figure 7: Screenshot of Google Analytics

A large number of statistics is preconfigured, but the user has the option of adding new views, the most important of which is the ability to define user segments. This enables (among many other possibilities) filtering out and displaying all users from a specific country, or preventing pageviews originating from your own organization to be counted. For some examples of filtering and other hints which may be useful, see <https://support.google.com/analytics/>.

GA also tells you how many user of your sites visit it with a mobile device, down to specific models.



Additionally, Culture24 developed a “framework suggesting ways to make use of your social media metrics”, available at their site<sup>26</sup>.

**Best Practice recommendation:** In order to quantify user engagement and its development over time at your website, use Google Analytics.

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<sup>26</sup> <http://goo.gl/ZydDit>

## **4. Examples of User Engagement with Epigraphic Material**

### **4.1. Archivo Epigráfico de Hispania**

The epigraphic archive of Spain is situated at the Universidad de Complutense de Madrid. It was founded in 1990 by José Luis Gamallo and is now coordinated by Prof. Dr. Joaquín Gómez-Pantoja, Facultad de Filosofía y Letras, Universidad de Alcalá de Henares. It has a collection of about 22,000 data sets on inscriptions from the Iberian peninsula and related literature, they publish the journal *Hispania Epigraphica* annually and maintain the content of the *Hispania Epigraphica* online database (<http://eda-bea.es/>). The archive is frequently visited by external scientists as it constitutes a unique data resource.

The structure and organisation of the archive is interesting regarding user engagement. With a marginal financial contribution by the University, the archive is run privately (not as a university project) and the major work is done by volunteers (teachers, taxi drivers, independent scientists and students). All of them have an education in ancient history and the archive is a social platform for Epigraphy enthusiasts. Part of the social activities are joint excursions and private gatherings. But it is not only an archive, they are in cooperation with local museums for didactical purpose and act as a scientific working group for conducting projects.

#### **Outlook**

Archivo Epigráfico de Hispania it is not only an archive, they are also cooperating with local museums for didactical purposes and act as a scientific working group for conducting projects.

The most recent popular scientific project was providing technological advice on the inscriptions for the archaeological ensemble of Clunia near Burgos. The use of QR codes in the museum provide direct access to scientific data to all Epigraphic findings from Clunia and their translations (interpretations) - which usually are hidden in museum archives.

### **4.2. Translations of Roman Inscriptions at the Austrian National Library and the Compilation of a Catalogue**

The project was conducted within the frame of the Latin course, school year 2012/13 by Prof. Mag. Martin Oppelat at the Gymnasium (secondary school) BRG Wien XIV in Vienna, Austria.



The idea for the project arose during a survey for internet resources regarding the Latin language. A starting point was the description of former school projects on the VBI ERAT LVPA (release 1) homepage.

The inscriptions at the Austrian National Library were chosen as the project's topic. These Roman monuments, mainly from the province of Dacia, are wall-mounted for decorative purposes along the main stairs of the former 'Hofbibliothek' (Imperial Library). These monuments (17 grave monuments, 24 dedicative monuments and 9 inscription of honour) were last examined by Dr. Edmund Groag in 1913. A modern and well-arranged documentation for interested visitors did not exist.

### **Course of action:**

- Training in elementary epigraphic knowledge.
- Manual transcription of the inscriptions (partially with the aid of binoculars) by the students and a comparison with the corresponding data entries of the VBI ERAT LVPA database. Small transcription errors in the LVPA database could be corrected as a first result of the project.
- Raw translation by the students. The discussion of the translation regarding abbreviations and formulaic expressions with Dr. Friederike Harl (VBI ERAT LVPA) resulted in a valid translation confirmed by a professional.
- Additionally, a summary of the Roman history of Dacia and the Roman settlements related to the inscriptions was compiled.
- In cooperation with the school's computer department, a catalogue was compiled by Moritz Leidinger. It was printed and placed at the Austrian National Library at visitors' disposal. The images for the catalogue were provided by the VBI ERAT LVPA database via Dr. Ortolf Harl.

### **Outlook**

It would be desirable for the students that their translations be collected within the VBI ERAT LVPA database with reference to the students and a presentation of the project at the homepage. For further projects we recommended the collections at the Art History Museum Vienna and at Carnuntum.

A further school project was conducted by the Institut für Alte Geschichte und Altorientalistik, University of Innsbruck and high schools in Innsbruck, Austria<sup>27</sup>.

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<sup>27</sup> <http://www.uibk.ac.at/alte-geschichte-orient/head/bericht-sparkling-science---29-10-2010.pdf>



### 4.3. Epigraphy As a Tool for Learning Latin - Ljubljana, Slovenia

The Prežihov Voranc Primary School in Ljubljana is the only state primary school in Slovenia that has continually maintained a tradition of early learning of the Latin language. The Latin teacher, Aleksandra Pirkmajer Slokan, has introduced new programmes to stimulate children's interest in the classical language, some of which are based on epigraphy. The results include several exhibitions and a small guide through the lapidarium of the National Museum of Slovenia, written specifically for young people.<sup>28</sup>

### 4.4. The Ashmolean Latin Inscriptions Project (AshLI)

*"AshLI is a new collaboration between two UK universities, eleven UK schools and a major UK museum, aiming to bring a neglected corpus of Latin inscriptions to a wider audience. The project is a test-case for how 'pure' epigraphic research can be transformed into something of interest and value to the public, through online resources and new gallery displays."* (Masségla, 2014).

In Jane Masségla's paper<sup>29</sup>, a series of recommendations regarding public engagement with epigraphy is presented. We consider them to be Best Practice recommendations.

#### **Best Practice recommendations:**

- The results of a survey among target users show that they prefer general information on Roman life to scholarly resources (abbreviations, ligatures, serifs or Latin cursive).
- Material should be grouped into topics such as Roman Religion, the Roman Army, and Roman Families.
- Teaching materials and displays needs to be designed according to the curriculum requirements of schools and need to be tested by the teachers and the pupils.
- To reach a wider audience, links to your resources should be placed on high-traffic websites (e.g. educational hubs) and promoted through Social Media channels.

<sup>28</sup> <http://www.eagle-network.eu/wp-content/uploads/2015/01/Paris-Conference-Proceedings.pdf>

<sup>29</sup> <http://www.eagle-network.eu/wp-content/uploads/2015/01/Paris-Conference-Proceedings.pdf>

## 4.5. Iuvavum Project: Roman Stone Monuments in the Bavarian-Austrian Border Region

As an example for user engagement with databases for Roman monuments with and without inscriptions, the [www.iuvavum.org](http://www.iuvavum.org) platform was developed by the Research group for Archaeometry and Cultural Heritage Computing (CHC) at the University of Salzburg in 2008. The project was developed from the results of a stone-relief-inscription project, which provided an interdisciplinary monument description by geologists, archaeologists and epigraphers. It was conducted in cooperation with the Salzburg Museum and the Bavarian State Library.

The web platform gives access to Roman stone monuments and antique quarries in their local and supra-regional relationships and historic context. It offers an accessible description of provincial Roman history for the region and the sites where monuments can be viewed by the public. Each object is described in an understandable manner and augmented with a comprehensive glossary. For detailed scientific information access to the [www.ubi-erat-lupa.org](http://www.ubi-erat-lupa.org) database is provided for each monument.

The content of the Web platform is accessible via place-names of finds, museums, related stone quarries, an interactive map and a glossary. To enlarge the possible circle of users the site is embedded in Bayerische Landesbibliothek online (<http://www.bayerische-landesbibliothek-online.de/>), currently part of the content is transferred to the Austria-Forum (<http://austria-forum.org/>), a general knowledge network for Austria.

### Lessons learned

- The content was developed by scholars only, not involving targeted user groups.
- The site is very static because of missing utilities for user comments or user contributions.
- Sustainability is a problem (running costs etc.)

## 4.6. Wiki Loves (Inscribed) Monuments

### Special EAGLE prize for Wiki Loves Monuments ITALY

EAGLE offered a special prize for the best photograph of an ancient inscription from any one of the listed monuments of the Wiki Loves Monuments Italia (<http://www.wikilovesmonuments.it/>) contest.

Italy boasts a number of epigraphs whose magnitude is unique among world cultural patrimonies. The epigraphs constitute a unique and precious heritage whose extraordinary richness is peerless in terms of quantity and extension throughout the Italian peninsula.

Roman cities were literally strewn with written messages of the most varied nature: monumental inscriptions resulting from an intervention by the central power seeking to propagate a certain image of its power; inscriptions posted by private parties reflecting religious convictions, professional activities, and familial ties; graffiti and occasional writings too often ignored by history books, all of which stand as testimony to the nature of everyday life in its humblest and most popular aspects.

The special EAGLE prize for Wiki Loves Monuments Italia seeks to promote the intrinsic testimonial value of epigraphs and to do so in such a way that this patrimony, which exists right under the eyes of the world yet often goes barely noticed, emerges and gains the visibility that it deserves.

The response to this sub-contests targeted to the general public has been higher than expected and the initiative will be repeated in the next years. The winning picture for 2014 can found at:

[http://commons.wikimedia.org/wiki/File:Frammento\\_di\\_fasto\\_consolare.jpg](http://commons.wikimedia.org/wiki/File:Frammento_di_fasto_consolare.jpg)

## **4.7. The Ljubljana Edit-a-thon and User Engagement in Content Curation**

During the first EAGLE Workshop for WG2 on content curation and translation a first edit-a-thon of epigraphic contents has been carried out by the working group to test this activity's potential for engaging users in easy but useful tasks<sup>30</sup>.

The participants were divided into two groups. One worked on the EAGLE Wiki, another on content curation on Wikimedia Commons.

In less than 90 minutes, the participants learned how to perform the task and edited more than 40 pages on Wikimedia Commons while entering 30 translations with metadata in the EAGLE Mediawiki.

Having motivated participants was a good starting point, ultimately the following was achieved:

- understanding of the minimal technical skills required
- direct knowledge of the value of the contribution offered
- immediate impact of the work carried out

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<sup>30</sup> <http://www.eagle-network.eu/about/events/first-eagle-international-event-2014/>

- engagement with multiple resources and their interaction

Participants asked to be kept up-to-date and to be able to continue to contribute and they so did after the event.

## 4.8. Creative Industries, Artists

Some further examples of user engagement involving the creative industries and artists with inscriptions can be found here:

- <http://checkthis.com/tkfa>
- <http://www.artribune.com/2013/08/le-api-scatenate-di-emilio-isgro-a-lipari-una-nuova-peformance-tra-epigrafi-dellantica-grecia-che-introduce-per-la-prima-volta-la-tecnologia-nel-lavoro-dellartista-cancellature-in-movimento-su/>

This kind of user engagement addresses a limited public but has the advantage of being a unique and long lasting high quality project, which can enhance curiosity and bring more users from the arts interacting with EAGLE content.

A further contribution by the creative industries, as demonstrated by <http://www.museotechniki.com/> and <http://www.museofabber.com> is the use of 3d point clouds of inscriptions to facilitate the distribution of 3d printed replicas and curated content of cultural artifacts for educational, research and entertainment use.

## 4.9. User Engagement Projects during Summer 2014

Several user engagement projects were conducted during the Summer of 2014.

### 4.9.1. The British School at Rome Epigraphy Summer School

Thanks to a cooperation with Abigail Graham, Lecturer in Classics and Ancient History, University of Warwick, UK, EAGLE has been given the opportunity to participate in the International Summer School on Epigraphy, run biannually at the BSR. This event will be a major opportunity to encourage use of the EAGLE services and present tools to engage users.



Students work on inscriptions in Rome. A selection of texts is prepared to meet their research interest and they are notified about which texts will be their focus during the workshop. The aim of this is to get closer to the users interests by offering a training which shows them the possible uses in their work of the EAGLE services, resources and tools. This makes collaboration with EAGLE more attractive to them while demonstrating the reliability of EAGLE products.

During a day towards the end of the ten day workshop, students are introduced to EAGLE as a project. The 2014 workshop ran into some problems with choosing inscriptions to work on, since there was no approval from the Vatican regarding the desired material. For the 2016 workshop, access to material will be granted by the American Academy in Rome. It is planned to take rubbings and photographs of the objects. The fairly short object texts will then be translated and entered in the EAGLE Wiki. Students will receive direct practical training and see immediately their contribution to the project.

This workshop will also see an interaction with our partner project Perseids which will develop a system to allow editing of entries in the EAGLE Wiki via the Perseids tool.

#### **4.9.2. University of Rome Work Team Specific Workshop**

A specific training for a selected target audience took place at the University of Rome. This kind of interested party engagement is pivotal to further expansion of user engagement, as people involved in tasks are tendentially more prone to disseminate participation among users than basic end users. This training was specific to the EAGLE Wiki and Wikimedia Commons, and involved a small corpus to test with as in the previous project. 20 students and 5 colleagues attended the workshop.

#### **4.9.3. Herculaneum Workshop**

As for the workshop at the BSR above, EAGLE has been invited to present the project and perform some training on its encoding and editorial methods at the Herculaneum workshop was held in June 2014. At this workshop the target users were international students. About 25 students contributed their translations to the EAGLE Wiki.<sup>31</sup>

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<sup>31</sup> <http://ancientgraffiti.wlu.edu/hgp/the-2014-season/>, accessed 2015-02-05

#### **4.9.4. Epidoc Workshop and Wikimedia Edit-a-thon at Bologna University**

Wikimedia Italia, the cooperating partner University of Bologna and UHEI held a Wikimedia Edit-a-thon dovetailing with the annual Bologna Epidoc workshop. This event was directed at Master Level students at the University of Bologna and focused on Greek inscriptions and their metadata on Wikimedia Commons. In this context, Wikimedia Italia offered an introduction to the Wikimedia projects following the presentation of the EAGLE project. Students were trained and offered hands-on practice in editing Wikimedia Commons content and the EAGLE Wiki. 25 international participants attended the Workshop.

### **4.10. User Engagement - Tourist Point of View**

by Antonio Enrico Felle (UNIBA)

#### **4.10.1. Now**

Usually the ancient inscriptions are not considered by tourists in archaeological sites, museums, churches... and so on. Why? Not because they are not interesting for them in any case, but simply because they are not friendly displayed to the attention of common visitors.

The inscriptions in the most part of cases -mainly in the most ancient and greatest museums, for example the Vatican Museums, or the Bardo Museum in Tunis, but also in the newest (as in the Arles Archaeological Museum) - appear like stored in a warehouse, and their placement, often in dark or not too enlightened places, as like as too high or too low, dissuades the visitor to view and to read them.

In respect to other classes of ancient monuments, as statues and sculptures, paintings, mosaics or vases and other small finds, the inscriptions appears in some way neglected: because they are commonly considered naturally complicated and in some way reserved only to few people, the very few ones which still know classical languages.

Yet, the inscriptions are a very precious source to recall the real life of the past, and the tourists can be fascinated just by this aspect: they were largely diffused almost in every stratum of ancient societies and the "epigraphic habit" appear adopted in very very different and copious ways.

#### **4.10.2. EAGLE**

The main idea is to guide the tourist to considering the ancient inscriptions as "friend monuments": in respect to the common negative rule above described, a good exception in this sense is very well represented by the epigraphic exhibition in the Museo Nazionale Romano (Museo delle Terme di Diocleziano), where the visitor can view the inscriptions (that are not too many!) in a comfortable position, in a very good light conditions, and he can read the original text actually inscribed on the object and their translation in modern languages.

In EAGLE project, we can re-create these same conditions to all users, but amplified to a very very large documentary base. Moreover, the "visit-paths" by EAGLE can be a unique chance to view documents otherwise out of reach and invisible: as like for the inscriptions from Roman catacombs -that are in the most part still there, in not too easy conditions for a touristic tour...

It should be preferable (also to involve the very Institutions that preserve the epigraphic documents) to propose to the tourists some "visit paths" based on chronological or - better - thematic criterion considering first of all the documentation actually existing in the involved sites (that will be particularly useful about the inscriptions still in their original places in archaeological sites). By EAGLE portal and/or by its applications, , the tourist will have the chance to enlarge virtually his local "visit path" to other similar - or to completely different - situations in other collections and sites, and compare them. The translations, obviously, are absolutely relevant to reach this aim.

#### **4.10.3. Some Examples**

We will present here some possible case studies about inscriptions by Christians in Rome during the long Late Antiquity (from III to VIII cent. CE). However they can be adopted considering also different documentary bases, and they are interesting also from a European point of view.

Every CP can offer, from its own point of view, valid examples to realize a successful tourist-engagement in EAGLE project. As responsible of EDB, that has the aim to collect all the inscriptions by Christians in Rome during the long Late Antiquity (from III to VIII cent. CE), I prefer submit here some possible case studies particularly about these documents. However, they can be adopted considering also different documentary bases and interesting also form an "European" point of view.





- The transformation of the language: classical and usual Latin/Greek (considering the inscriptions by high society patronage and the graffiti occasionally scratched) to the origin of modern European languages.
- Transformation of writings (from classical forms of imperial age to Late Antiquity, until the so-called "popular school" in Early Middle Ages
- Travels, trades, migrations, pilgrimage, foreigners, languages in contact: the movements of people, goods, religions, ideas (this theme, I think, should be particularly fitting for the sites and museum along the limes on Rhine and Danube, but we have many cases of "strange" names also in the catacombs of Rome...).

Possible themes of "visit-paths" are very numerous, maybe too copious, as one can imagine: but first of all they have to be designed in favour of the real public of the museums and institutions and on the base of epigraphic documents actually existing there.

## **4.11. Planned Cooperation between BSR and Liceo Classico and Scientifico**

by **Francesca Bigi & Alessandra Giovenco (BSR)**

### **Concept for a school project**

To propose to the Liceo Classico and Scientifico one educational path for beginners (pupils attending the second year of Liceo Classico, the so-called V ginnasio, and second year of Liceo Scientifico) and one for advanced students (pupils attending the third/fourth/last year of Liceo Classico/Liceo Scientifico). Liceo Scientifico would be involved only with Latin inscriptions as it does not offer Ancient Greek as part of its curriculum.

We will present our initiative to schools with a choice of inscriptions based on a specific theme/subject. The inscriptions will be from Rome, so the activity will include visits to the museums, archaeological sites and places where the inscriptions are located.

The selection of inscriptions will be tailored for pupils following different courses of study. For example, pupils from the second year, who are studying exclusively Grammar, can participate in very simple tasks with transcriptions and translations and engage with historical evidence (Roman History is one of the subjects for second year students). A richer programme could be





devised for pupils attending the last years of Liceo, for whom Latin and Greek Literature, Philosophy, etc. are part of the curriculum.

Students will transcribe and translate the inscriptions selected with the help of their teacher and the assistance of one EAGLE member, who will assist the teacher by providing him/her with material to carry out the work. Transcriptions and translations will be entered in Wikimedia.

Students from Liceo Scientifico could be encouraged to make drawings of some of the inscriptions and upload their images to Wikimedia Commons. Drawing is part of the curriculum at Liceo Scientifico. (This was proposed by Francesca Bigi).

At the end of the project, a presentation created by the students about their work could be organised at the school. This could be integrated into the communication strategy of the school – the majority of schools now have their own websites.

#### 4.11.1. Measures of a Successful Outcome of this User Engagement Project

- **Active learning.** Pupils will have to interact with their teacher and not be taught passively. This is a challenge: in Italy the relationship between pupil and teacher is often very static and non-participatory. The project could involve those teaching Latin and Greek but also English Language (translations), History and Philosophy (contextualisation), Drawing (representation of the objects), ICT (digital imaging, metadata, etc.).
- **Collaboration with local institutions.** The selected inscriptions should be associated with a location where pupils are able to see the original objects. Seeking collaboration with local institutions is imperative as it increases awareness of cultural resources available for education in all the stakeholders (pupils, teachers, museums, superintendencies, etc.).
- **Teacher motivation leads to motivated students.** The teacher training phase is a key element. Teachers will need to be well trained and informed about the use of social media. This could be a potential new way of delivering educational content to their pupils and could allow them to benefit from and engage with students' knowledge of digital tools.

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**Editorial Remark:** all cited URLs were accessible in February 2015

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## 6. Appendix

### 6.1. EAGLE User Dedicated Services

A detailed description of the following services and related deliverables (5.1, 5.2, 5.3.1 & 5.4.1.) can be accessed at the EAGLE website. The following presents the aspects of the individual services regarding user engagement.

#### 6.1.1. EAGLE Portal

The portal which was planned on the basis of the existing portal [www.eagle-eagle.it](http://www.eagle-eagle.it) is now integrated within the EAGLE website. The portal consists of two main entities, a search interface and a personal space:

- a search interface that is at the same time friendly and sophisticated, allowing the more expert users to perform complex queries on the collection. It will be possible to perform both full-text searches using a simple interface, or to launch more advanced queries. The seven controlled multilingual vocabularies on types of inscriptions, object types, material, writing, decoration, state of preservation and dating criteria that were created to help in the alignment process of the multilingual metadata of the inscriptions from the different content providers will help users to create their search strings.
- users who are interested in getting access to the more advanced functionality will be able to use the EAGLE portal to register an account and manage their personal space. In this area, a registered user will have access to the items they have saved after their searches (queries, query results, single records, annotations on the records), as well as the notes and pictures taken with the Flagship Mobile Application.<sup>32</sup>

The Eagle portal will provide the users with the following functionalities:

Available for every users:

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<sup>32</sup> Deliverable D5.1 – Portal and services requirements and specifications, page 9, accessible at: [http://www.eagle-network.eu/wp-content/uploads/2013/06/EAGLE\\_D5.5\\_Validation-Plan\\_v1.0.pdf](http://www.eagle-network.eu/wp-content/uploads/2013/06/EAGLE_D5.5_Validation-Plan_v1.0.pdf)



- Search and browse the EAGLE content by using either a free text search or a more advanced interface, including faceted browsing through the integration of the EAGLE controlled vocabularies
- Access the stories created using the EAGLE Flagship Storytelling Application
- Export to the user's own PC the EpiDoc file of an object for further analysis and processing (available in Release 2)
- Create a user account in order to access the functionality reserved to the registered users
- Login to an existing user account

Available for registered users:

- Annotate and save relevant information in a user's Personal Space (e.g. records of inscriptions, search results, queries)
- Upload into the user's Personal Space content saved while using the Flagship Mobile Application
- Export the data saved in the user Personal Space to the user's own PC for further analysis (available in Release 2)
- Create new epigraphy-related narratives using the EAGLE Flagship Storytelling Application<sup>33</sup>

### **6.1.2. EAGLE Flagship Mobile Application (FMA)**

Complementing the EAGLE portal by making some of its functionalities available to mobile users, the EAGLE Mobile Application gives users of tablets and mobile phones access to the EAGLE content. Users that are registered at the EAGLE portal have additional functions available. The Mobile Application enables a (mobile) user to get information about an inscription by taking a picture with a mobile device, and sending it to the EAGLE server for recognition within the inscription image repository.

The initial version of the FMA will provide the following services:

- Search EAGLE content using image recognition in Exact Match mode
- Search EAGLE content using image recognition in Similarity Search mode
- Search EAGLE content using text search

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<sup>33</sup>The Portal D5.2\_v1.0, accessible at:

[http://www.eagle-network.eu/wp-content/uploads/2013/06/EAGLE\\_D5.2\\_EAGLE-Portal\\_v1.0.pdf](http://www.eagle-network.eu/wp-content/uploads/2013/06/EAGLE_D5.2_EAGLE-Portal_v1.0.pdf)





- Login to the mobile application using an account already existing at the EAGLE portal
- For logged-in users, annotate and save queries and their results
- For logged-in users, annotate and save pictures taken with the mobile device
- For logged-in user, access and review the navigation history.<sup>34</sup>

### 6.1.3. EAGLE Flagship Storytelling Application (FSA)

The FSA is a web-based tool designed to allow users to create multimedia narratives featuring epigraphic content and share them on the web. It is one of the components of the EAGLE portal<sup>35</sup>. As such, its interfaces are designed to be integrated within the general architecture of the EAGLE portal, and they are visually coherent with the graphic identity of the EAGLE portal<sup>36</sup>.

With the help of a friendly interface, users are able to write texts and include content in different formats into their narratives. In particular, the FSA is designed so as to help authors with special interest in epigraphy and in ancient history or archaeology to get easy access to the multimedia resources. The FSA is a tool that will ultimately enable users to include images and videos from popular hosts (such as YouTube or Europeana), excerpts from ancient texts, maps locating ancient places and, especially, the vast collection of inscriptions from the EAGLE network.

The initial version of the FSA provides the following services - a summary:

For all users:

- Perform full text search on available stories and browse stories with a keyword wordcloud
- List of recently published stories
- Share stories on social networks

For registered users:

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<sup>34</sup> First release of the flagship mobile application and SDK D5.3.1\_v1.0, accessible at:

[http://www.eagle-network.eu/wp-content/uploads/2013/06/EAGLE\\_D5.3.1\\_First-release-of-the-flagship-mobile-application-and-SDK\\_v1.0.pdf](http://www.eagle-network.eu/wp-content/uploads/2013/06/EAGLE_D5.3.1_First-release-of-the-flagship-mobile-application-and-SDK_v1.0.pdf)

<sup>35</sup> The Portal D5.2\_v1.0, accessible at:

[http://www.eagle-network.eu/wp-content/uploads/2013/06/EAGLE\\_D5.2\\_EAGLE-Portal\\_v1.0.pdf](http://www.eagle-network.eu/wp-content/uploads/2013/06/EAGLE_D5.2_EAGLE-Portal_v1.0.pdf)

<sup>36</sup> EAGLE Project Website D6.1, accessible at:

[http://www.eagle-network.eu/wp-content/uploads/2013/06/EAGLE\\_D6.1\\_EAGLE-Project-Website\\_v1.0.pdf](http://www.eagle-network.eu/wp-content/uploads/2013/06/EAGLE_D6.1_EAGLE-Project-Website_v1.0.pdf)



- Create a new story including basic editing, saving and publishing features
- Add content from EAGLE and external resources
- Assign keywords to a story (tagging)

## 6.2. EAGLE - Portal Questionnaire on UE

A survey was compiled in order to better tailor the EAGLE project and its website (<http://www.eagle-network.eu>) to its users' requirements<sup>37</sup>.

The online survey, using Google Forms, was distributed in December 2014 within the project community and the participants of the EAGLE Congress in Paris 2014.

The survey is split into the following four parts:

1. General questions about the usage of the EAGLE-Portal.
2. Which tools of the Eagle project suit best for user engagement.
3. Participation in activities on Wikimedia Commons and Wikipedia.
4. Aspects on project sustainability.

Some results:

- User engagement proved to be rather low - approximately 200 people were invited via Email, only 21 responded. However, this represents, according to Nulty (2008), a 10% sampling error and an 80% confidence level.
- Usage of the EAGLE-Portal is weekly on average, main reasons are checking project progress, project documentation, and news on conferences and events.
- Among the tools developed by the EAGLE project best suited to attract non-epigraphers are the Translation tool and the Search tool. They are preferred to the Flagship applications (mobile and storytelling).
- About 50% are interested in contributing to the Wikipedia based project activities.
- Regarding the sustainability of the EAGLE project, the following recommendations were presented: include other archives and content providers, include inscriptions that are not Greek or Latin, include inscriptions that are not ANCIENT Greek or Latin, integration of EAGLE data in other (related) platforms.

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<sup>37</sup> <http://www.eagle-network.eu/about/reserved-area/project-surveys/user-engagement/>

EAGLE  
Deliverable D1.1  
Quality Assurance Plan



- About 80% are prepared to invest time and/or effort in the EAGLE portal after the EAGLE Project is finished.