What is AMORES and why was it necessary?
More than a fifth of children and young people (23 per cent) rarely or never read (GB: Department for Education, 2012) on their own time, and nearly a fifth (17 per cent) would be embarrassed (Clark, 2012) if their friends saw them reading. Many school children lack knowledge of their own national or broader European literature. Teachers find it challenging to interest children (especially boys) in reading literature, but agree that the use of ICT could help raise the level of student interest. To implement ICT in literacy teaching, we argue that teachers need not only expertise in using ICT but also a new teaching methodology in order to find effective ways of using ICT to engage pupils in reading and writing through the creation of e-artefacts. What we mean by e-artefact is anything that can be communicated digitally, such as a photograph, video, digital comic strip, blog entry, tweet or Facebook post, and that is based in some way on a story that the schoolchildren are reading. What we mean by literature is more contested, but keeping in mind the rationale that reading is of value in a person’s development – for example because it requires extended focus and concentration – and that storytelling is imperative, while wanting to be flexible concerning what was important to the children, we regarded extended narratives in any format as literature. Hence, from the examples given by the
children themselves, fanfiction, autobiographies and graphic novels were included, while magazines, websites and computer code were excluded. AMORES was designed to address the issue of children’s disengagement with literature through a new teaching methodology of interactivity and collaboration using ICT and the pupils’ creativity, which requires teachers to become more digitally literate and use these new capabilities in their teaching in the classroom.

How did we do this?

The project used an approach called Participatory Research in Action, or PRA (Fetterman, Kaftarian & Wandersman, 1996). This treats teachers as experts, placing them at the heart of the process, empowering them to express their opinions and identify what they need to know to become digitally literate. It is also based on the idea that learners construct meaning through the act of design and collaborative learning, whereby meaning is constructed jointly by a community (social constructivism). Teachers are excellently positioned to be actively engaged in the research process, and are able to introduce young people to this method. Using this technique and working with children and young people to create e-artefacts, the researchers and the participants learn from each other as equals (Tavares, Hepworth & De Souza Costa, 2011). Ultimately, this not only enables teachers to deliver the research aims
AMORES, a two-year European Union-funded project under the Comenius Multilateral strand of the Lifelong Learning Programme, is a collaboration between schools from Croatia, Denmark, Poland, Sweden and the UK, led by CARNet (Croatia) and three UK higher education institutions (Coventry, Northumbria and Staffordshire Universities). It secured €299,500 and ran until the end of November 2015. All the resources mentioned here are freely available for download via the AMORES website: www.amores-project.eu.

but also enables each teacher to incorporate his or her own personal goals into the process.

PRA is seen as favoured because it takes into consideration local knowledge and experience, and is therefore arguably more practical and thus findings may be more deliverable in the future (Reason & Bradbury, 2011). Thus, ownership of the AMORES process by teachers is more secure because they are involved in both the research itself and the outcomes of the project. This ultimately leads to improved research results and an enhancement of teachers’ professional practice in digital literacy.

The teachers’ face-to-face workshops

We held a teacher workshop in Stoke on Trent in March 2014, led by the UK partners (Northumbria, Staffordshire and Coventry Universities). This not only established the PRA community of practice but also informed the creation of a six-week online course (May-June 2014) as well as a second workshop, held in Stoke in March 2015.

The benefit of engaging teachers as co-researchers is twofold: not only do we gain their expertise and knowledge regarding using technology in this context; they also get the experience of embedding technology as part of their teaching practices, and are able to use the research process to procure time for learning and to reflect upon their teaching experiences.

In developing the PRA methods, specific issues which may impact upon the teachers’ involvement were also taken into account. Prior to the workshop a questionnaire had been disseminated to gather data on current practice and user needs. The questionnaire’s findings were
summarized to provide an introduction to all the schools involved, and to inform the selection of which technologies to suggest to the teachers for use. These activities were included to enable participants to feel more comfortable in working with each other, and to demonstrate that their views and experiences were highly valued. This approach helps participants feel more able to influence decision-making, even though the project objectives had been established in the EU bid beforehand. This approach ensured that the group felt an ownership of the objectives.

The first workshop comprised three sections, over three days (a second workshop was held in March 2015). Two teachers from each participating country (except Poland, from which one teacher attended) as well as representatives from the lead partner (CARNet Croatia) and the quality assurance organization 36.6 from Poland, participated.

Section 1: Each teacher was encouraged to think about the wider school environment and consider how technology was being used within the home, in out-of-school settings (including libraries), and in the home environment.

Teachers talked about and shared their experiences of using technology, and reflected upon their learning needs.
Section 2: The research team presented potential ways in which technology could be used to help support literacy work, and worked with the teachers to reflect on and develop these uses.

Section 3: The teachers discussed how their learning and the relationships that had developed over the course of the workshop could influence the structure of the next part of the project, and began drawing up initial plans to implement this. Through this process they developed content for the online teacher-training plan.

Mapping and asset-building
While we used a number of interactive techniques in the workshop, here we describe one in particular. Participants were asked to work in small groups to develop images of a typical learner in their education system. The teachers were placed in groups of two and given a large piece of flipchart paper. One drew around the other to create a representation of a learner. They then drew a line down the middle of the outline drawing and began discussing the typical characteristics of their learners, listing these in the drawing. The advantage of this task was that participants were able to start identifying with the similarities and differences between education systems, societies, and the experiences of the young people. It also helped them reflect upon their assumptions and knowledge concerning the lives of their learners. It prompted discussion concerning how to best work with learners, and indicated points of similarity that could be exploited to support communication between learners from the different schools.

Online course
Based on the outcomes of the workshop, a plan was devised for the teachers’ online training course to further enhance and embed their digital literacy capabilities. In brief, the online course lasted approximately six weeks and consisted of the following activities: creating videos and comic strips, and learning about games-based learning. The platform used was Edmodo (a secure social medium specifically designed for schools), and using videoconferencing for collaborative learning. The course, delivered via Moodle, can be found at http://www.amores-project.eu/results.html.
Teachers engaged strongly with the video creation section of the online course as well as the comic strips, and the evidence for this comes through very clearly in the final artefacts created by the students. However, they were less engaged with the games-based learning and the Edmodo platform itself. Edmodo was used more as a repository for students’ e-artefacts than for genuine discussion and collaboration between students. Our teacher colleagues were generally positive regarding the online course, but one teacher mentioned that it may have been better to “use the online module as a test for the ideas in the implementation phase, pick a specific book and try to create some lesson plans so we can compare approaches in different school systems. That way everyone could see how it could actually be incorporated into reading in the classroom; [in other words,] building the ship while sailing.”

In parallel with the online course, the project team drew up a Technology Selections Report based on what the teachers felt they needed in order to enhance their digital literacy capabilities. This report used the SECTIONS model (Students [i.e. users], Ease of use, Costs, Teaching & learning, Interactivity, Organization, Novelty and Speed) developed by Bates and Poole (2010), which is a framework for evaluating technology and can be found at http://www.amores-project.eu/results.html.

Drafting and piloting a new teaching methodology

The teachers involved in the project and the research team jointly drafted an innovative teaching methodology – the most important result of the AMORES project – which promotes student creativity, interaction and engagement with literature. As opposed to simply reading a book and writing a book report, the methodology includes the following steps: reading the book, creating e-artefacts based on the book, sharing these e-artefacts with peers via social networks and videoconference, and finally reflecting on the process.

The literature review, accessible at http://www.amores-project.eu/d1-1-download indicates that creating artefacts is a learning strategy that involves the highest-order learning skills, found at the top of the revised Bloom’s taxonomy (Anderson & Krathwohl, 2011). The pedagogical theory that best describes learning by creating is that of Papert’s idea of constructionism. This emphasizes not only the learning that is
triggered by the constructivist approach of activity-based learning (or learning by doing), but also the importance of the learning that occurs as a result of discussion leading to shared meanings.

The recommended instructional strategy is therefore collaborative creation, which is underpinned by the theory of social constructivism. In brief, collaborative learning is described within social constructivism as a means by which meaning is constructed jointly by a community (Conole, Littlejohn, Falconer & Jeffery, 2005). Lewis, Pea and Rosen (2010) summarize social constructivism as the process in which “by together questioning texts and situations, conceptualizing problems, designing solutions, building artifacts, redesigning, re-conceptualizing and reinterpreting, people generate forms of public knowledge that in turn provide conceptual and relational support for further interaction and learning”. Lewis, Pea and Rosen (2010) remark that “students engage in deep learning when they research, design and construct an artifact or model as a representation of their knowledge” and that “constructionism links personal and social influences on learning because the artefact produced is an output of the interaction of personal and social knowledge construction that needs to be meaningful and made public”.

The model for this online collaboration was Dahlsveen’s storytelling arc (Tilkin, Paulus, Biesen, & Land, 2011), which was reinterpreted by the authors as a cycle. When viewed as a cyclical process, the storytelling arc closely resembles Kolb’s experiential learning cycle (Kolb, Rubin & Osland, 1991). The act of telling the story is motivational for the creation of the story, and feedback from audiences promotes further motivation for creating more stories.

These two forms of interaction resulted in marked differences in the success of their implementation. The use of the social media platform was used as a collaborative tool only in its later stages, and only to the extent that students commented on and “liked” particular artefacts. Reasons for this included unfamiliarity with using social media for learning, and difficulty organizing content within the platform, resulting in its being used purely as a content repository.

The videoconferencing was highly effective, however, commonly on the second attempt. Initial attempts displayed the usual initial barriers to interaction through the medium (indicating that the initial training course had not been successful in relaying how to circumvent these
barriers). Students displayed the storytelling and audience relationships indicated by the Dahlsveen model, with no discernible impairment due to the distanced mode. Unanticipated barriers involved the small age difference between participants (small to us but large to the students) and students’ self-consciousness over a (misplaced) perception of poor language ability.

The conclusions from this interaction are that rehearsal, planning and playfulness will help students develop the confidence to present and respond in videoconferencing activities. Modelling learning activities online will help teachers comprehend how social media can be used to facilitate the sharing and co-creation of content.

Students need time to reflect on the creation of e-artefacts. Reflection as a whole class exercise, in which students can see each other’s work, can also be motivational and is the point at which learning about the meaning and content of the literature can be investigated in more depth. In fact, we would argue that it is because the creation of artefacts requires reflection that the AMORES methodology is such an effective learning process. In this regard, videos (in which students appear) seem to work best as shared classroom activities as students find them more personally engaging and because they take a longer time to create, thus extending the period for which a text is investigated and resulting in deeper reflection.

Bilateral videoconferences

A number of bilateral videoconferences (VCs) took place; here we describe a typical event. Having read the book Mio my Son (original title Mio min Mio, by children’s author Astrid Lindgren), Swedish students presented the e-artefacts they had created to Croatian students. The 28 students on the Swedish side, and the 16 Croatian students with their teachers, met online in May 2015. The Swedish students presented their e-artefacts about Swedish author Astrid Lindgren and her story. They had made films in iMovie in which they presented parts of the book (iMovie e-artefacts were shared through Edmodo). The films were sent to Croatia in advance, so that the Croatian students could prepare questions to ask during the VC. The Croatian students also voted for the best e-artefact.
World Book Day
All five schools taking part in the project held a joint VC on World Book Day, 23 April 2015. Around 60 students and ten teachers from Denmark, Croatia, Poland, Sweden and the UK shared their experiences in the project up to that point, and talked about some of the books they had read.

E-artefacts competition
We launched a competition open to all schoolchildren in the EU. Contestants were invited to enter their e-artefact in the form of a video or digital comic strip. Five judges, including Dr Jane Secker (Chair of ILG), chose the winning entry, which was announced in August 2015. The winning videos and comic strips are displayed on our website, and the prize was a visit to Dubrovnik, Croatia.

Research results
Students were surveyed through a number of mechanisms suggested by the central research team of the project, but individual schools were
allowed to apply those they considered appropriate for their learners, in keeping with the participative and egalitarian ethos of the project. Where surveys were conducted, data were anonymized by allowing the children to select a pseudonym for their responses. A master list of pseudonyms and real names was kept by teachers on paper, and never left the classroom. This meant that all electronic files contained only pseudonymized information.

In the UK we found that *Diary of a Wimpy Kid* is a very popular book amongst ten-year-olds, and that the most popular author is David Walliams. From the data we have gathered since the new teaching methodology was tried out, we know that our participant schoolchildren now get more from the stories they are reading; this is manifest in a much greater depth of understanding for both plot and characters. UK schoolchildren created video e-artefacts that explored the story in their own words, which demonstrated a richness in comprehension and knowledge of the text.

In Sweden, we found that the factors encouraging children to read were numerous. We asked them what they had read most recently (a mechanism for finding a randomly selected cross-section of their reading material). Amongst the older children (14 and 15 years old)
who responded, we found that the most recent literature they had read fell into one of the following categories:

- A text set by the school (or a sequel to a set text), cited by half the sample
- A film tie-in (either the novelization of film, or a book on which a recently released film had been based)
- A book within the fantasy genre
- A biography of a sports star or heavy metal musician (i.e. Zlatan Ibrahimović, AC/DC or Ozzy Osbourne)
- Fanfiction
- Responses we did not count as literature (magazine, website or social media)

The inclusion of soccer and heavy metal is a reflection of the issues of masculinity that surround the issue of reading. Many of the respondents (particularly those who used male pseudonyms) reported that they did not like reading, but still reported that they frequently read for fun. This was interpreted by teachers as an aversion to boys categorizing themselves as readers, even though they read, as they perceived this as un-masculine. Boys with higher social status, and self-confidence, had no qualms about self-identifying as readers. The interpretation of the “sports or metal” finding is that some boys will admit to reading a book if it is about what they perceive as an uncontestably male subject.

Amongst the younger readers (12 to 13 years old), the greatest difference was that they read more texts that were not set by teachers: only two of 42 children reported that the last book they had read was a set text, compared with 44 of 88 of the older age group. This indicates that at this age they are far more proactive in finding texts that interest them. As with the older students, fantasy, film tie-ins and the “sports or metal” biographies also featured, whereas differences included the presence of graphic novels and teen dramas. Responses regarding the last item read that were not regarded as literature included newspapers, subtitles in a movie, an inode (a text descriptor in Linux or Unix) and the survey tool itself!
Impact of the project

The most important impact of the project is the success of the AMORES teaching methodology, with 14 participating teachers and around 400 students, which brought about a change in the teaching of national literature by increasing students’ engagement with literary works. This is clearly visible in the evaluation report, showing that the use of the AMORES methodology contributes to greater student engagement. The teachers who took part in the project were very pleased with how the use of the methodology had an impact on their classes. All participating teachers were willing to use the AMORES methodology after the pilot implementation and after the end of the project in their literature classes. Additionally, there have also been examples of teachers using the AMORES methodology in other subjects, such as the social sciences.

There were several examples of establishing partnerships with schools and other stakeholders outside the project. The project team held a number of workshops for teachers on how to use the teaching methodology and meetings with the aim of presenting the AMORES methodology and facilitating its adoption by teachers, principals and librarians. This has helped establish a network that will make it possible to encourage more educators to use the AMORES methodology in their classes. This network includes about 40 teachers from the workshops who did not participate in the pilot implementation, and about 70 stakeholders who were present at meetings with members of the AMORES team. The stakeholders included teachers and principals, school librarians, publishers, and a national volunteer reading programme.

Furthermore, at the project website there have been more than 380 registered downloads of the project outcomes, the most popular of which is the AMORES Revised Methodology. The digital training materials intended to help educators make the best use of the methodology in their classrooms have undergone several stages, and are available at the project website: http://www.amores-project.eu/results. These training materials, available in English, Croatian, Danish, Polish and Swedish, have been accessed about 800 times.

Teachers formed a community of practice, sharing ideas and examples of good practice as well as supporting each other in the implementation of the AMORES methodology. The communication went
through different channels, including the AMORES teacher mailing list, the AMORES Facebook community, and the AMORES teacher closed group.

What was encouraging in terms of the AMORES methodology extended beyond changes in the learning of literature. Although the project promotes the reading of literature and digital literacy, it is in its development of students’ personal sense of self-efficacy and co-oper-
ation that it has its strongest transformative power. There were many stories of students from all the countries who had not previously had the opportunity to present their abilities finding a new presence in the classroom as a result of making videos or comics, or participating in the VC. Students also developed skills in co-operation and language ability. Through their videoconferencing, they acquired a greater knowledge of other cultures and an appreciation of the strength of their own.

What the results also show, however, is an absence of impact on the extent to which children report that they like reading. In the analysis of the Swedish schoolchildren at the start of the project, the percentage of children who claimed a love for literature fell at a rate of 12 per cent per year. At the end of the project, the fall-off rate remained unchanged. The sample is too small for any clear-cut declarations; and of course, these are only the reported opinions, which are distorted by the children’s self-perceptions and how they choose to be perceived. Also, as seen above, reading is tied up with many gender-related anxieties concerning identity. Despite this, the children’s engagement with literature within the classroom is heightened, and far more enjoyable. Successful strategies for translating this to transform daily habits of reading still need to be identified.

Notes
1. The storytelling arc defines the beginning and the end of a story, it’s the process of storytelling. Traditionally a story comes to an end, but in participatory environments it is possible to create an interactive way of storytelling in which the story unfolds in a circle between storyteller and listeners who participate in the creation of the story (Tilkin, Paulus, Biesen, & Land, 2011: 8-10)
2. Kolb’s learning cycle suggests that learners’ ideas are formed and reformed continuously through experience, and that they bring their own ideas and preconceptions to differing levels of elaboration to the iterative learning process. In summary this
cycle involves: doing, reflecting, processing, thinking and understanding, which are governed by the learner’s needs and goals, and all elements are necessary for learning to be achieved.

3. Fanfiction websites are communities of devotees of various books, comics, films or games, who write their own short stories based on the characters. The teachers reported that children read these because they were simpler (often having been written by other children), had an “underground” appeal, and were part of an online community to which they belonged (Black, 2007).

References
Conole, Grainne; Littlejohn, Alison; Falconer, Isabel & Jeffery, Ann (2005). Pedagogical review of learning activities and use cases, LADIE project report, JISC; August 2005.