

# GIFT project – early stage critical reflections from a meta study

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**Abstract.** This paper presents a meta study that has been taking place within the GIFT consortium. The study has been conducted by a researcher using ethnographic methods and provides information on observations that could be pertinent to issues in humanities, technology and exploitation in context of cultural informatics. I posit that interdisciplinarity of the field is a great advantage which is also difficult to manage on a practical level and can contribute to misunderstandings and chaos. Furthermore, position of technology in museum context often is overstressed. Developing critical approaches and giving more agency to research partners that are not core part of the team could strengthen potential project outcomes and exploitation of results.

**Keywords:** hybrid technology, ethnography, meta study, museums

## 1 The GIFT project

Museums serve as our collective memory, preserving and interpreting our shared culture and identity. The central challenge of the GIFT project is to create designs that facilitate meaningful interpersonal experiences: we chart how museums can give visitors the tools to tell their own stories. GIFT focuses on hybrid experiences, realized through mixed reality designs that complement, challenge or overlay physical visits with digital content. Digital media now merge with the physical museum experience in ways that expand the experience beyond the time and the space of the visit. This creates new challenges as well as opportunities for establishing meaningful narratives and user experience designs, that support complex and nuanced interpretations and forms for sharing. The first half of the project (January 2017-July 2018) has been devoted to uncovering stakeholder needs and the iterative development of early prototypes. Since July 2018, the prototypes have undergone testing and study and have been material to creating a framework for developing hybrid museum experiences.

The GIFT consortium includes three university partners with expertise in HCI and playful design, one artist company with a long track record in performance-based digital experiences, one startup design agency with competence bridging art and marketing, as well as Europeana, a prominent European organization with a mandate to encourage digital innovation in the cultural heritage sector.

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## **Meta-study**

As reported last year [2] the GIFT project consists of multiple work packages, each with its individual sub-projects and contributions. One of the ongoing studies within the GIFT project is a meta level study of the project itself lead by Uppsala University, the partner responsible for theory development.

The main purpose of the meta study is to follow up the theoretical concepts that have been used within the project and see how they've developed over the duration of our work. This study is being conducted by me, a PhD candidate in Human-Computer Interaction, and it has become the central part of my dissertation. For the past two years I've been playing a double role in the project. On one hand I'm a participant, helping achieve the project goals and working on deliverables. On the other hand, I've been using the project itself as a rich source of data on design practices and processes within these types of projects.

## **Methods and Data**

The meta study has been done with an ethnographic approach. The researcher became part of the team for the duration of the entire project and did participatory observation. The entire process was documented through personal note taking as well as audio and video recording whenever possible. The current data set covers a variety of meetings within the project group including occasions such as design workshops, theory workshops, action research workshops, testing events as well as consortium coordination meetings.

The study from the start was strongly influenced by the theoretical approach of discourse theory [8, 9]. Discourse theory treats both discourse and artefacts as articulations of specific and sometimes conflicting ideals. By studying such articulations and untangling their meanings we can learn something about the goals and motivations of the different parties involved in the process.

## **Progress**

As the project is still ongoing, so is the meta-study. That said, the data from the first two years has now gone through first phases of coding and analysis and has provided rich material for discussion. What I present here are preliminary findings. I've been contributing to the theoretical grounding of our work while at the same time taking a step back and critically reflecting on the events unfolding within the different work packages. Currently, I do not make any claims about the generalization or scope of my observations. This paper should not be seen as a formal report of project progress, but more as a conversation piece on salient observations performed during my field work. I bring them up as interesting cases [11] that are perhaps of relevance for other workshop participants. The focal topics raised should be perceived in that spirit.

## 2 Issues in humanities

### **Advantages of Interdisciplinarity**

Research in humanities, especially that supported through structure of EU funding, has become an interdisciplinary effort bringing together groups sharing different traditions of thought, methods and standards. Cultural Informatics is a prime example of how different domains and fields can connect to share knowledge in a mixed context. In the case of our project, we've attempted to combine art, design, performance research as well as HCI, museum studies and leading edge technology. The different fields create useful synergies that have been leveraged within the project.

Thanks to our multifaceted approach we have developed two full museum experiences one located at Brighton Museum, UK and one in Museum of Yugoslavia, Serbia. The experiences are highly artistic while at the same time enabled through use of technology. They have been developed in collaboration between academics, creators but also museum practitioners. Each partner brought their own priorities and values into the project, which helped in sensitizing the other participants and thus creating something that I believe none of the partners could have achieved on their own.

The artist partners have imbued the project with their unique esthetic approaches and with the ambition to create a deep connection to individual visitors. Collaboration with digitally ready museums enabled us to begin work on hybrid experiences on a more advanced level. Our partners have already been interested and informed in the field of digital innovation, therefore coming with valuable insights and relevant experience within their own institutions. That was further reinforced by the fact that the multiple partners within our consortium have previously worked with museums, cultural heritage institutions and art. There was enough of the same interest towards improving human experience to create shared goals and tools. The designers and academics, came with all of their experience in development and evaluation to further support the creative and critical approaches.

All those synergies have allowed our project consortium to become a collaborative effort towards further exploring the concept of meaningfulness as well as its role in relation to technology and museums. The shared understanding also resulted in mutual trust with museums experimenting with new forms of interactions such as digital gifting and interpersonalization. From the very conception of this project, the tight relationship between like-minded professionals of different fields was core to our success. It can't be stressed enough how important the trust we built is for allowing a critical reflection on our own practice.

### **The Flopside**

Although interdisciplinary work has all of the above-mentioned advantages, it also comes with a set of challenges. Fostering an environment open to different approaches and values is a time consuming task that relies deeply on the involvement of all the parties concerned.

One of the explicit goals of our work has been to make our practice more theoretically informed, empowering for the users and institutions we collaborate with. We

chose action research as a model for one of the work packages and have continuously included museums as stakeholders as mentioned above. Focusing on the concept of meaningfulness meant facing a very broad term that has to be defined based on its context, the relevance to the people it relates to and many other factors out of our control. Our attempt to further approach understanding of meaningfulness by including various disciplines that could shed different light on the same topic seemed like a good fit for the task.

What might have seemed like a reasonable goal at the start has turned out to be a goal of unbelievable complexity. Within any field, there is an abundance of conflicting theoretical stances all the way from high abstraction level philosophical assumptions to low level concepts. The variety of ideas also comes with a variety of methods and standards. Working with a topic that is already vague and contested within any one field over multiple fields, increases the amount of considerations that have to be taken. The various perspectives bring value to the table but deciding what comes first and what are priorities should be can be polarizing. This has been visible through the changing notion of certain terminology within the development.

An example concept that I have placed under specific scrutiny is the notion of “the user”. Although the word user to many might seem self-explanatory, in reality it is used in so many ways that it can be considered what is called in discourse theory a *floating signifier*[9]. This is an idea that has different meanings in the different discourses it can be used in. In the project the concepts of ‘user’ and ‘visitor’ were seemingly used interchangeably, but in effect calling someone a user – or visitor – meant very different things for different participants in discussions.

What became visible is that although superficially, we do all use similar language and seem to agree on our shared ideals, our fields come with a degree of nuance that can be difficult to articulate. The result was that central concepts began to drift from the participants’ initial assumptions, causing dissonance in communication and collaboration. In particular, early results from the meta study show that there are differences between how designers and museum practitioners view their users affecting what kind of technology and development process they favor.

Discussing those differences in an open dialog could possibly improve the general satisfaction with the process as well as some of its outcomes. Furthermore, that kind of discussion could be of methodological value for reporting of science. But within the work process of a project, it becomes very difficult to discover that a particular concept has become contested in this way.

### **Theory Useful as Baseline**

Already on the level of project planning and proposal writing, the team committed to certain values such as putting meaningfulness ahead as one of central concepts. Furthermore, we defined our goals in terms of empowering museums and helping them leverage their assets. Those commitments were deeply rooted in existing literature on new museology on one hand, and hybrid technology on the other.

New museology is a theoretical approach developed in the 1980s by Peter Virgo [14], primarily through his book of the same title. In it, he describes the state and role

of museum institutions as changing in order to become more inclusive and open to other points of view. Museums also needed to adapt to competing with other entertainment venues on a free market. That led to museums moving from being heavily object-based to being more story and visitor driven. Museum collections are still the central assets but what is nowadays frontline is how objects can tell a story, how humans can relate to them and how our history can be represented in a fair fashion.

Literature on hybrid interactions puts a lot of focus on different modalities of experiences [3, 5, 12]. Trying to explore the interaction between physical and digital and showing that there is a way to enhance traditional experiences with technology. Very often new museology and hybridity get brought up together due to their interest in making the human experience the central point of interest [4, 10].

Although these two approaches focus on different topics and come with their own vocabularies and problems, they have served as important anchor points for our work. While the project has a project coordination work package, the work on keeping vocabulary and theory coherent has been a separate task and not well integrated with the overall management of design and development. Based on the observations above, responsibility for theory might be a just as important administrative task. That said it's difficult to fund positions that are mostly concerned with mediation, enabling dialogue and theory. I claim that an effort should be made towards having that kind of role in other projects.

Finally, this affected also how we dealt with evaluations, the topic of focus at this year's workshop. As stated previously, the values and focuses of different partners can mean that throughout the evaluation process we set standards that are not shared among partners or uniform throughout the duration of the project. Within GIFT we have used public testing, expert evaluation as well as small sample, qualitative in depth interview approaches. Each method has different merits and as designers we typically know when to implement which one. Working with concepts of meaningfulness means finding oneself in a field that can be perceived as highly subjective and difficult to measure in absolute terms.

We argue that a shared theoretical framing can be a saving grace. Being able to use theory to highlight the process of reflection, decision making and negotiating within the team gives us a stronger attitude to argue for the choices we've made. The themes of new museology and hybridity, even if not commonly agreed upon, have been thoroughly discussed and form a red thread throughout our work.

### **3 Issues in Technology**

One of the major focuses of our work is developing experiences. As previously described, we defined our work in terms of empowering museums and creating meaningful experiences. One thing that becomes visible is that technology isn't even present in those statements. In GIFT we put technology second. It is there to help but not to take the spotlight. We all agreed that we do not want to work with technology for

the sake of technology. Hybrid experiences have something unique to leverage and it's been our focus all along to find how can hybridity contribute to meaning making.

For this purpose, we chose to reframe the concept of personalization, which has been previously well explored primarily as a technology concept ([1, 6, 7]), but here became framed in connection to meaningfulness and what makes an experience meaningful. Instead of using technology to acquire information, create algorithms and artificially fine-tune content to one's liking, we turned to consideration of social ties and museums as social institutions. We've explored the concept of *interpersonalization* which looks upon personalization as something that happens in dialogue between people, and takes into account how we relate to them. For example, using gifting as a cultural reference for practices of sharing we've created a prototype that would translate that into a hybrid form of engagement.

What is important to point out here is that the strength of our prototypes does not come from the high end technology that we have used. The strength is related to social practices studied by anthropologists and sociologists, with technology being the element that allows us to enable communication over larger distance.

From user tests of a 'Gifting' app at Brighton Museum last summer, we saw that this approach allows the visitor to reframe the museum visit from the perspective of someone else. Connecting to those around you, making something relevant for others, celebrating the social bonds that we all build as human beings has been a new way of making technology relevant in an almost invisible way.

We have also worked with notions of appropriation, not in the sense of cultural hegemony but as a tool for the museum visitor to make the content of a museum more relatable. In the prototype our consortium produced in Museum of Yugoslavia in Serbia, the users were allowed to create their own content based off of the stories they found in the museum. We are further working with this concept in a second iteration of the same prototype. What makes the interaction meaningful isn't the application we use, but the social mechanisms behind it. Technology design is again second, to activity design and choice of content

That said it is also important to mention that to some extent the project is inconsistent at applying its own values. We do not start with technology yet our exploration process was bound to the tech solutions described in the proposal. Although based on rich theoretical considerations, what was produced are apps. Technology advancements tends to be foregrounded by project participants and audiences alike, including the commission. In the first project review one of the work packages was criticized for not using emotion recognition. This choice of technology had been foregrounded as a candidate for use in the proposal, but discarded due to unreliability in an early feasibility test. The review triggered an extensive reconsideration and trial with the technology, only ending up with the same conclusion: it was not yet up to the level of readiness required for use within the project.

To put it bluntly, it is technology that gets funding and the cool technology that gets published. Meaningful interaction through social processes is nowhere near as attractive of a pitch. Even museums will often make the mistake of buying a tech solution or attaching to a solution too early on in the process, without thinking of their goals with introducing the technology, their target audiences, or the desired experi-

ence, or for that matter, how a new and often brittle technology solution will be maintained once it is in place. Although the project was well aware of the risks with technology-centric design, it did feel into some of the same traps.

## **4 Issues in Exploitation**

The interdisciplinary collaboration that has been the overarching theme of this short paper once again becomes central when it comes to issues of exploitation. It ties directly to the issue of focusing or not focusing on technology, as well as to the larger discussion on mixing disciplines in humanities. As mentioned, part of our research has been an action research process, meaning we include practitioners within our design process. We collaborate with 10 different museums from around the world regularly getting their feedback in a form of collaborative workshops. The institutions also run their own experimental work moderated by some of our researchers.

We built relationships with the institutions we need to reach for exploitation purposes, from the very early stages of our project. This has become central points to our exploitation strategy. Preparing a product, running a project for 3 years and then attempting it to sell its results to an uninformed audience is a difficult pitch. Having the museums with us from day 1 with a stake in the project makes a huge difference.

We can observe that the museums that we've collaborated with put extra work in championing our solutions and spreading the information about our consortium further. When it comes to exploitation, most often we have certain numerical goals such as amounts of social media shares, amount of website visits etc. Those measures, useful as they can be, only account for a surface level engagement with public at an instant of a share. Building relationships, although harder to measure and more time consuming, has resulted in more collaboration opportunities, more invites to public events, more engagement with our solutions. Fostering digital champions who can spread the word after seeing our progress from up close, is a strategy that should perhaps gain more traction and should be therefore reflected in the evaluation criteria for EU projects.

Even though we have managed to gather collaborators that are vocally supporting our solutions, it has not been an easy task to spread the information about our work. Convincing museums outside of the scope of the project to use the solutions developed has been difficult, and we hope to further explore reasons behind that. Lack of resources on the side of the museums, need for more control and existing time restraints have been among the reasons previously named by some of the collaborators. This is a salient point of discussion for the workshop, and it would be interesting to see how other projects have addressed this issue and what kind of communication seem most efficient for increasing relevance of digital technology in cultural heritage.

## 5 Open Challenges

As we are nearing the end of our project some issues beyond its duration come up. One of them is a fairly known problem of research leaving its field[13]. As our funding ends so does, possibly, the life cycle of our applications. With no extra support available for museums, the cost of running further experiments as well as sustaining the extra interactions with existing personnel might become too much. Despite the support we have received from museum partners, it is unclear to what extent they will follow up on the last 2 years of work. This brings another open challenge to the table, namely that of museum agendas. For the duration of the project, digital installations have been in focus in the strategies for the participating museums, and actively pursued. It seems that priority will not be maintained in the museums' everyday practice. In general, museums continue to center their identity and therefore strategies around their exhibits and their collections, and other content including digital innovation takes a backseat. The lifetime of a digital exhibit will be limited, if it becomes perceived as not providing extra value other than the initial novelty. That attitude can be problematic for future work and permanent installations. Museums are public institutions with very specific lists of goals which such as educating their audiences, creating public discourse and providing entertainment. What kind of arguments, logic and resources can then be used to appeal to museum employees to show them inherent value in adding digital resources? How do we align the goals of design and development to further enable museums pursuing their own goals and feeling that the digital can enrich their possibilities?

As previously stated, interdisciplinary work in humanities holds incredible potential, but managing design and development processes remains a difficult topic full of obstacles when it comes to communication, expectation management and shared goals. Although we all come from the same starting point, drifting is an inevitable side effect. How do we work with communication? How can we provide support? and finally, how can we help museums argue for more resources for digital innovation and change?

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