Working Together on Young Children’s Digital and Media Practices: Fostering Academic and Industry Partnerships

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http://digilitey.eu
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Introduction

Arguably, there has never been a more important time to foster industry-academia research in the field of children's digital and media practices that now. Fast-changing developments in technology have led to significant changes in young children’s lives, and it is hard to keep up with some of these transformations. One way of ensuring that we do keep up-to-date in our knowledge and subsequent actions is to exchange knowledge across sectors, and across disciplines. This was one of the key reasons for setting up the COST Action DigiLitEY, a network of researchers and industry partners across 34 countries.

Over the past two years, we have organised numerous seminars, conferences and Think Tank workshops in which academics have worked alongside industry partners to think collectively about some of the key questions and challenges in the area. In this publication, the Chair of the Action, Jackie Marsh, and the DigiLitEY Academic-Industry Liaison Manager, Dylan Yamada-Rice, draw on this, and other, experience to set out some guidance on such cross-sector collaborations.

This booklet will be of value to those academics who want to develop stronger links with industry in order to ensure their research has impact on practice, and will also offer helpful guidance to those companies who want to find out how to engage academics in the development of their products and services. In the first section, Dylan draws on her own experience as an academic who straddles the industry-academic divide to provide advice to academics on how to begin and sustain such collaborative work. Jackie, in the second section of the booklet, provides insights for companies on how to work with academics to ensure that their products and services are informed by rigorous and robust research findings. Together, Dylan and Jackie address some of the key challenges faced in the development of these collaborative partnerships, but also point out the numerous benefits to be gained by such an effort.
Tips for academics wanting to work with industry partners

Since taking on the role of academic-industry link on the DigiLitEY management committee, I have moved from a full-time academic position to having two part-time posts, one in the digital games industry and the other in academia. In both these positions my research focuses on digital play for children. However, the emphasis within each role is slightly different. I will describe these roles next as a means of providing a context for the tips offered to academics wanting to work more closely with industry partners, which are shared at the end of this piece.
Working in Industry

In my industry role I work as a Senior Research Manager for Dubit\(^1\), a research, strategy and development company focused on digital content for children. In this context, I conduct research for Dubit that feeds directly into the commercial briefs they receive from clients wanting to develop new digital products/content for children. The research needs to be undertaken, analysed and reported on very rapidly (sometimes within a week). As a result, in most cases there is not time to relate the findings formally to past literature, as is standard academic practice. Instead, Dubit and the client need quick insight into how the research findings relate to wider knowledge about children, their development and digital practices, and what this means for the development of the new product they are creating. This means that I use my wider knowledge of childhood development and play from past academic and other commercial projects to interpret the findings, but I do not necessarily refer to them specifically.

The upside of this fast-paced research is that I get to report the findings directly to the client, and Dubit’s digital interactive team (art work, programming etc.) working on the development of the product/content. This means that as an academic it is also the fastest turn around on impact I will ever have because I can suggest direct changes to the direction of a product. Sometimes the changes I suggest are not possible for technical or financial reasons, or because it has to fit in with the wider brand. This is also extremely useful knowhow, as most academic social science research looking at children’s digital literacy practices is devoid of a direct link to how the content is manufactured. As a result, the insight into both contexts (industry and academia) has shown me how both contexts have insights that are useful to one another. Thus, there is knowledge that exists in the process of MAKING digital media for young children which is also of importance (or should be) to academic know-how.

Working in Academia

In my in academic role I work as a Senior Tutor in Information Experience Design (IED) at the Royal College of Art. The academic research I conduct is different from the commercial research. I am given time to read in depth, and

\(^1\)http://www.dubitlimited.com
to fully situate the studies I undertake within this wider and historical body of knowledge. The commercial environment largely does not have the time and/or finances to spend money on reading time. Indeed, as I pointed out in Yamada-Rice (2017), many smaller commercial companies also cannot afford to undertake research.

Further, the lecturing that goes along with the academic role also affords the opportunity to share ideas with Master-level and postgraduate research students. This provides the additional chance to gain insight from students who have specialisms in design and other related skills. Indeed, there is the possibility to also to include them directly within data collection, analysis and dissemination, and to use these skills to deepen the research.

To expand on this further, I would like to highlight what the differences mean for research and content creation in Virtual Reality (VR). The VR research I am undertaking within industry is about looking at children’s engagement and interaction with current content and devices, and also to consider any impact on vision and balance. The aim of this is to help set industry standards and best practices for creation. However, students working on VR at the RCA are able to experiment with the medium in a way that means it does not necessarily have to be commercially successful. Thus, whereas the commercial environment is focused largely on the most comfortable user experience, IED students might explore the production of content that makes the user deliberately uncomfortable. This is important for, as Julier (2013) states, ‘designers, professional and otherwise...are still experimenting with alternative modes of practice and representation to the dominant narrative’ (p. 219). In other words, both types of research and practice support each other in both the short- and long-term.

**Tips for Academics**

The experience of working in two roles, one in the commercial context and the other in academia, has given me a degree of insight into how academics can make meaningful connections with industry. The following are intended as a few insights into the commercial environment that I have found useful when forging a link:

1. **Time** is closely monitored in relation to financial return. Commercial companies need to financially account for their time in ways that are different from Universities. Most academics on a permanent contract
have research time, which allows them to conduct studies but also attend conferences, network meetings and read. Very few people working in a commercial environment can undertake these activities without showing how doing so will directly bring back a monetary return for this investment. Therefore if you invite an industry partner to a networking event it needs to be clearly planned how this will also be of benefit to them commercially.

2. **Commercial companies**, like academia, are part of large networks of partners. These partners share very up-to-date knowhow on trends and media use etc. that can inform their projects. Suggesting to a commercial company that they can attend a network event for free because it provides the opportunity to meet XYZ is usually not enough. Think about why you want the commercial partner involved. If you want to disseminate research findings to create impact, but that will be of use to them, then state clearly what knowledge they will gain from attending and be sure to deliver this. If the value of having an industry partner is of more value for the academic side then cost in proper payment for your industry partner to attend. This should include, travel, accommodation but also, importantly, their time.

3. **Academic research findings** need to be easily consumable. In terms of dissemination, as I have described earlier, industry partners need to move fast. They don’t have time to read articles or big reports, so make sure you disseminate the top-line findings as concisely as possible. Offer bullet point insights and make suggestions for how these could be taken up immediately to create better products and content.

4. **Understand Non Disclosure Agreements.** NDAs are part and parcel of commercial work. Working with big-named clients is very exciting and offers particular types of insight into children's digital media use and play that I have not come across in the academic context. However, I cannot share what I have learned with anyone beyond Dubit and the client, as the material is commercially sensitive. If you do want to share it there will be processes in place to govern this, such as waiting until the product is in store. It is important to understand Intellectual Property and NDAs before beginning to work with industry to ensure you do not accidentally break confidentially on commercial work. Not understanding this could have a detrimental affect on the industry partner you are working with.
Having said all of this, commercial companies value research that will help improve their products, and if this can be delivered in an easily accessible manner it is likely to be used. This is positive for an academic environment where (in the UK at least) there is increasing need to show the impact of its work beyond the academy. Spending time to understand how to work well with a commercial company will also, in my experience, provide useful insight into the processes of developing and making digital products/content, which will also fuel academic know-how in the field.

References


Tips for industry professionals wanting to work with academic partners

In thinking about academic and industry partnership, I want to approach the subject from a different angle. What if you are a new company who is developing a media/digital product for children and you want to link up with an academic who can help you to inform your product? In this section, I will offer some guidance based on over twenty years of working with industry partners, from small, independent companies to global multinationals. I don’t have the insider knowledge of industry that Dylan has, so I can only approach this from my experience as an academic, and hope that these pointers will be of value to professionals working within the children’s media industry.
1. Why are academia/industry partnerships of value?

It seems important to begin with a rationale of why it is worth industry partners taking the time to develop suitable partnerships in the first place, just in case this is not self-evident to all. First, academics have had extensive training in research methods, normally through the undertaking of a doctorate, and thus can provide helpful guidance on how to construct a research project that will hopefully lead to reliable and informative insights for industry partners who are developing digital/media products and services for children. Second, many academics working in this field have knowledge of child development, and can offer insights that can ensure products and services are age-appropriate and relevant for needs. Third, academics who undertake research in children’s digital and media practices often conduct research with children and their families, and so have an understanding of best-practice approaches and methods. For companies new to this area, who might have a great idea for a product or service that they think might work but are not sure how to test this out, such a partnership might make the difference to the success or failure of their business idea. It would seem appropriate, therefore, for such companies to consider the value of developing a collaborative relationship with academics.

Collaboration is emphasised, rather than a one-way relationship. Indeed, the most productive cross-sector relationships are in my experience, of a nature in which knowledge is *co-produced*. In this way, all partners are equal in the task of creating new knowledge, all are involved at all stages of the project (although the levels of input at different stages may change according to expertise), and all contribute to the process of identifying the problem/challenge, finding the best ways to approach that, and agreeing on the most effective ways of sharing the outcomes of the collaboration.

2. How to find a suitable academic partner

There are numerous ways to identify an academic who might be able to work with you to inform your product development. A first port of call might be Google Scholar. Searching this database using relevant key terms will surface those academics whose work in the field has been cited widely by peers, always a good sign that their work is of value (published work appears on Google Scholar in citation order, so highly-cited work appears first). Google Scholar will also offer some information on how extensively an academic has published on a particular topic. Whilst that is an indication of their expertise in
an area, it is also possible that an academic has studied a certain topic only once, yet has done so in such a way that it has offered invaluable insights, so do take that into consideration.

There are also databases of academic work that can provide valuable information on who is working on a particular issue (and access to their academic papers), such as ‘Academia’ and ‘ResearchGate’, and these offer keyword searches so that you can narrow down your search.

Another way to identify potential academic partners is to review the programmes of relevant conferences, to identify who is presenting on a topic of interest to you. This is a good way of identifying very new work, as academics will often present first at conferences research findings that they will publish later on. There are many academic conferences and the best way to find relevant ones is to use appropriate search terms in a search engine, such as ‘children’s media conference’, ‘virtual reality, children, conference’, and so on.

Sometimes, industry professionals seek to work with the people they see as being at the top of their field, but often these are the busiest academics who already have multiple commitments, and they may not be available for any further projects. In addition, if you are a small, start-up company then you may not wish to pay the kinds of consultancy fees that the top experts may charge. Therefore, be sure to cast your net wide in terms of searching for potential academic partners, and do not limit yourself to the top-cited academics in the field. Sometimes, if these academics are contacted, they can suggest peers who could collaborate with you, if they are not able to do so themselves.

3. Be clear about what kind of input you want

In my experience, the best partnerships develop when both partners have a clear sense of what they want, and can expect, from each other. Academics have many pressures on their time, including teaching and administration in addition to research, and with the best will in the world, cannot always devote time to collaborative projects that appear to be open-ended, or ill-defined to begin with. So, approach the academic you have identified as a possible collaborator with a clearly defined proposition, along with an estimation of how much of their time the task might take. They may then re-negotiate this with you if they feel it will take longer, but at least both parties will then have clear expectations about how the project will proceed.
It is also important to note that research with academics will normally take place on a longer timescale than industry-only research, as indicated by Dylan above. Not only do many academics have a number of different roles to juggle in addition to their research, but also the practice of undertaking research is different to that of industry. For example, if the research involves human subjects, then the academic will need to seek ethical approval, which normally involves a process of developing an ethical review proposal and then waiting for some time for this to be approved by the relevant university committee. Whilst this extra time might be a little frustrating, the industry partners can reassure themselves that the resulting project will be more rigorous and robust as a result, and the outputs are then more likely to be accepted by a wider academic community (and thus potentially have influence on the field).

4. Identify a range of potential sources of funding for the collaborative project

Whilst it is sometimes possible for academics to get engaged in collaborative projects with industry without funding, this is not always the case - indeed, it is relatively unusual for an academic to be able to give their time freely in this way, due to university expectations about grant income and so on. For some companies, this is not a problem, as they are able to pay consultancy fees, which can compensate the individual and/ or his/ her institution for their time. For small start-up companies, this kind of investment is often not possible. This should not deter such companies from making contact with potential academic partners, however, as there are funds that are sometimes available for developing collaborative projects.

The university that the academic is based at may have such funds available, to support research impact, or knowledge transfer. Therefore, the academic you contact will be able to explore whether such funding is available to him or her. There are three important points for industry partners to know about with regard to such potential for funding. First, the proposed collaboration/ project must meet high academic standards in terms of its aims, objectives, design and so on. The proposal for the project will be reviewed by a number of people internal to the university in question, and these sorts of funding streams are highly competitive, so your proposal must stand out from the crowd. Therefore, make sure you are prepared to spend some time developing the proposal with your academic partner to ensure that it is the best it can be. Second, the impact of the collaborative research needs to be clearly spelled out, and has to be significant in nature if the proposal is to have a chance of being funded; and
the more specific you can be about this impact, the better. Third, universities normally expect the industry partner to make a contribution to the project of some kind, to demonstrate commitment to it. This may be a small amount of cash, or a contribution in-kind - for example, an estimate of the cost of your staff time dedicated to the project.

Universities also offer other innovative ways for scholars to engage with industry, through funding PhD collaborative scholarships, in which a PhD student works on an issue/problem that has been identified as an industry need, or through funding secondments of academic staff to industry partners. Ask your academic link to find out what is possible in this regard, if you have an interest in such schemes. Again, some in-kind contribution would be expected.

There are also external streams of funding that can be applied for to take forward interesting ideas that require industry/academic collaboration. For example, governments may provide opportunities for academics to apply to research councils for funding for ‘knowledge transfer’ projects, or small-to-medium enterprises may apply to other departments for funding for research and development projects that involve academic partners. Whichever partner leads the collaboration means that the proposals have to be oriented in rather different ways, but the funders provide full guidance on how to apply. In the UK, for example, Innovate UK has regular funding calls for business-led projects, and offers advice and guidance for applicants.

5. Offer academics access to your professional networks in order that the outcomes of our collaboration can be widespread

It may be the case that the collaborative work you undertake with the academic partner is commercially sensitive and, if that is the case, widespread dissemination of the findings is not possible. However, if you do feel able to share at least some of the outcomes of the project, then it is always valuable to provide opportunities for the academic to disseminate the findings alongside you at industry conferences or seminars. This will be helpful for the academic, as he or she can then demonstrate wider impact of her/his research, but it is also valuable for industry conferences to have access to academic research. If the academic you are working with is new to industry collaboration, then it would be helpful for you to outline the kinds of presentations that are expected, so that he or she does not turn up aiming to share all the details about methodology, for example, or the theoretical framework for the research. That is

https://www.gov.uk/government/organisations/innovate-uk

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not to say that I am advocating an absence of these features - I have been to numerous industry conferences where more attention to such matters would have been beneficial for the audience, so that ideas do not appear to have been created in a vacuum, or based on anecdotal evidence, and so on. On the other hand, it is undoubtedly the case that academic conferences would also benefit greatly from the input of industry partners, who offer fresh perspectives and insights on issues, so do offer to join your academic partner at such events if that is at all feasible, and the cost of attending such events could be built into funding proposals.

6. Look to join relevant academic-led networks

There are always academic networks that would welcome industry collaboration. These networks provide industry partners with access to ready-made circles of scholars who are all focused on a specific issue or problem, and they can, through collective and inter-disciplinary modes of working, create synergies that offer illuminating and original insights into the matter at hand. For example, the EU Commission funds European-wide networks through its COST Actions, which are normally funded for four years, and can offer valuable opportunities to engage in seminars, workshops and think-tanks on specific issues. It is possible to identify an up-to-date list of funded and active networks on the COST site: http://www.cost.eu, where key word searches can be undertake to identify relevant Actions.

7. If the collaboration works, stick at it!

In my experience, the best industry-academic partnerships are those that grow and mature over time. Each partner develops an understanding of the strengths (and any weaknesses!) of the other, and trust is gained. Joint knowledge can be developed in a particular area in a deep and meaningful way, and this is the kind of knowledge that can readily lead to step-changes in practice. Collaborative industry-academic partnerships that are sustained over time are also viewed favourably by potential funders, as they offer evidence that such partnerships have effective ways of working and thus may be less risky to fund. Thus, if you find an academic partner that you work well with, put some energy into sustaining and fostering this over time, including periods when funding might not be as readily to hand as others. Even if neither party has funds to draw on immediately, there are still ‘quick win’ collaborations that could be
undertaken, such as joint blog posts on a specific issue, or webinars that allow reflection on a problem with invited participants.

As an academic who has worked with numerous industry partners over the years, and enjoyed collaboration with all of them, I can see that there are great benefits for both parties, alongside numerous challenges such as pressures of time, different priorities and, sometimes, language and processes that are specific to each and difficult to fathom - especially true in the case of academia, but not uncommon in industry! Good partnership working can easily address all of these challenges and lead to game-changing insights that further research and practice, benefitting a wide range of stakeholders, including policy-makers, children and families, and the general public.
Conclusion

In this brief paper, we have attempted to offer guidance to academics and industry partners on how to develop meaningful and productive partnerships. Both of us have gained much from our various engagement in these partnerships, and are committed to research that combines the best of both worlds.

In conclusion, we would suggest that industry/ academia partnerships are essential in relation to research on young children’s digital lives. This is a fast-changing area, and technological developments mean that anyone interested in the area needs to be alert to new trends, in addition to having knowledge of long-term best practice with regard to research in the field.

The COST Action DigiLitEY is active in promoting industry-academic collaborations, and so if you are interested in participating in relevant events and activities, do sign up to our newsletter, and keep abreast of developments on our website - http://digilitey.eu.