Unboxing co-creation with students: Potentials and tensions for academic libraries

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Abstract

Co-creation has received increasing interest as a way of develop products and services in collaboration with customers and clients. Recently, co-creation has been introduced in higher education; however, there is no general agreement about what this entails, and while the concept of co-creation has been used in a number of differing contexts, descriptions tend to focus on potentials only and not the tensions inherent in this kind of collaboration.

In this paper we describe a conceptual model for co-creation with students and explore the potentials as well as the tensions inherent in co-creation with students at academic libraries. Through a case study at The Royal Danish Library, Aarhus University Library we develop a conceptual model for co-creation with students that identifies the key aspects of co-creation with students and indicates its key potentials and tensions.

Keywords: Co-creation, collaboration, podcast, academic paper, higher education, e-learning, academic library, students

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Introduction

In this paper we develop a conceptual model for co-creation with students and explore the potentials as well as the tensions inherent in co-creation with students at academic libraries.

Co-creation of products and services has become of increasing interest as a way to develop products and services in collaboration with customers and clients (Voorberg, Bekkers, & Tummers, 2014). As a concept, co-creation is a neologism that designates that something is created in a collaboration between different parties. The concept was coined in the late 1990s to describe new approaches to user-driven design and innovation processes in private corporations. Approaches which involve customers in the construction of products and services to suit their specific context (Kambil, Ginsberg, & Bloch, 1996; Prahalad & Ramaswamy, 2000). The concept has, however, spread to other areas, especially in the public sector, where there is an increasing interest in involving clients and citizens in the design and innovation of services and solutions (Crosby, Hart, & Torfing, 2017). Innovation in public services is not just a matter of new technologies or techniques, but also new practices and new relationships between service providers and citizens (Pestoff, 2012). The relationship between public service providers and citizens is continually changing, and new forms of providing public services are emerging. Recently, co-creation has been introduced in various fields such as social innovation (Voorberg et al., 2014), health care (Thompson, 2007) and higher education (Bovill, Cook-Sather, & Felten, 2011; Chemi & Krogh, 2017).

In higher education, active student involvement in educational processes has been of interest for decades, specifically in the Nordic countries where there is a long tradition of student-centered teaching and learning activities (Chemi & Krogh, 2017; Lea, 2015; Light, Cox, & Calkins, 2009). Traditionally, though, student involvement has been encouraged as a means to increase the motivation and engagement of students (Nygård, Brand, Bartholomew, & Millard, 2013), whereas the recent interest in co-creation with students expresses an attempt to involve students at a more fundamental level (Bovill, Cook-Sather, & Felten, 2011; Carey, 2013; Jensen & Krogh, 2017). Co-creation with students can be defined as "a collaborative, reciprocal process through which all participants have the opportunity to contribute equally, although not in the same ways, to curricular or pedagogical conceptualization, decision making, implementation, investigation, or analysis" (Cook-Sather, Bovill, & Felten, 2014, pp. 6-7). Co-creation with students then is involving students not only in teaching and learning activities, but in the very development of teaching and learning products or services. However, there is no general agreement about what this entails. The concept of co-creation has been used for various phenomena, and the differences are not always made clear (Pestoff, 2012). Further, the concept tends to be promoted as a "magic concept" (Voorberg et al., 2014, p. 1334), i.e. as a kind of panacea that solves all kinds of problems while having no problems of its own. However, collaborating with students can be challenging and problematic (Bovill, Cook-Sather, Felten, Millard, & Moore-Cherry, 2016). In other words, there are both potentials and tensions in co-creation with students at academic libraries. We need a nuanced approach if we want to exploit the potentials and eliminate or at least explicate the tensions. Research is needed, then, into the specific aspects of co-creation with students as well as into its potentials and tensions.

In this paper, we contribute to this emerging field of research by describing a conceptual model for co-creation with students. In the research literature, the concept of co-creation
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appears to be a black-box concept, i.e. a concept with no description of its internal elements and their workings. In this sense, the conceptual model we propose serves to “unbox” co-creation with students at an academic library. Through a case study at The Royal Danish Library, Aarhus University Library, Campus Emdrup, we develop a conceptual model for co-creation with students that identifies the key aspects of co-creation with students and specifies its key potentials and tensions.

In the following, we first describe the case study methodology of the paper. Second, we describe the case and its context in more detail. Third, we present the conceptual model that “unboxes” co-creation and identifies its internal aspects. Finally, we specify the potentials and tensions of co-creating with students at academic libraries.

The case study methodology

Case study research is a research strategy, widely used within educational research, which allows detailed descriptions of complex social phenomena (Lichtman, 2013). Yin (2000), who has become the main scholarly reference in case study research, stresses that case study research is particularly adept at contributing to an understanding of the dynamics of real-life events, as these are present within specific settings. The methodological strength of the case study is that it offers insights into the characteristics of real-life events as they unfold. The method is used in many disciplines, such as psychology, sociology and education, to further our knowledge of social phenomena in a way that allows for an understanding of complex social dynamics (Yin, 2000, p. 4). In particular, case studies are well-suited to explore small group behaviour, and organizational practices, that are not manipulated and controlled (as they would be using the experimental method) but unfold in unpredictable and uncontrollable ways (Lichtman, 2013; Yin, 2000, p. 11). This allows for the development or construction of models of complex events that help to retain the complex characteristics of real-life events (Eisenhardt, 1989; Yin, 2000, p. 38), which is the purpose of this article. A conceptual model, then, is not built through statistical generalization but rather through “analytic” generalization (Eisenhardt, 1989; Yin, 2000, p. 149), which is a process of qualitative analysis in which we identify a pattern in the complex chain of events under study.

A “case” can refer to many kinds of units of analysis, such as a program, an implementation process or an organizational change (Yin, 2000, p. 29). The case that we have studied is a co-creation process with students at The Royal Danish Library, Aarhus University Library. The library has participated in a Danish national project, 2017-2019, financed by Denmark’s Electronic Research Library. The project explores co-creation with students and aims to test and transform methods of co-creating with students in ways that are relevant for academic libraries. The library was interested in co-creating products and services together with students. The main goal was to integrate the experiences of students with e-learning products and services produced by the library.

A case study explores events within their real-life context, and involves a description of the context of the study (Yin, 2000, p. 35). As mentioned, the current interest in co-creation with students at academic libraries is part of a more general interest in new kinds of relationship between service providers and citizens in the public sector. We cannot understand co-creation
in academic libraries appropriately and adequately, if we do not take this context into account. In the following, we describe the case and its context in detail.

The case and its current context

The library was formed in 2000 as DPU Library when Denmark’s Pedagogical University (DPU) was established in 2000 as an institution for higher education and research into pedagogical topics. Since then it has been involved in a series of fusions, and today it is part of The Royal Danish Library, Aarhus University Library. So the library is the result of a series of transformations in the university sector in Denmark. The current interest in co-creation has also emerged from a series of transformations in the public sector towards increasing collaboration and partnerships with private and non-governmental actors (Crosby et al., 2017; Torfing & Triantafillou, 2016). Social scientists describe the current interest in co-creation as an element in an on-going paradigm shift in the public sector, from bureaucratic authority, through competitive service provider, to an arena for collaboration between various parties in order to find practical solutions to common problems. The research literature describes this as a development from a Public Administration paradigm, through a New Public Management paradigm, towards a New Public Governance paradigm, which are three conceptions of the status and role of public sector organizations and the relationships between their professionals and the citizens. We sum up the key characteristics of the paradigms in Table 1.

Table 1.
Three paradigms of the public sector.

<table>
<thead>
<tr>
<th>Paradigm</th>
<th>Public Administration</th>
<th>New Public Management</th>
<th>New Public Governance</th>
</tr>
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<tbody>
<tr>
<td>Public institution</td>
<td>Formal authority</td>
<td>Competitive service provider</td>
<td>Arena for co-creation</td>
</tr>
<tr>
<td>Organizational ideals</td>
<td>Specialization Quality</td>
<td>User-satisfaction Efficiency</td>
<td>Involvement Legitimacy</td>
</tr>
<tr>
<td>Employees</td>
<td>Educated experts</td>
<td>Service-minded assistants</td>
<td>Collaborating partners</td>
</tr>
<tr>
<td>Users</td>
<td>Clients (with needs)</td>
<td>Customers (with wants)</td>
<td>Createurs (with resources)</td>
</tr>
</tbody>
</table>

The Public Administration paradigm is a traditional conception of the public sector according to which public sector institutions are formal authorities that administer and monitor government rules (Thomas, 2013). Accordingly, public sector professionals are expected to be educated experts with the knowledge and skills to act with authority and professional ethos in the interest of the public good and the needs of citizens. For instance, academic libraries serve the academic interests of citizens, especially university staff and students, by facilitating access to information and information specialists who can assist university staff and students and contribute to the development of their information literacy. It is in accordance with this paradigm that most public sector organizations, including academic libraries, have (had) a
strong focus on quality and predictability in the administration of rules with a high level of
disciplinary specialization and a formal hierarchy (Torfing, 2012).

The New Public Management paradigm is – as the term suggests – a newer conception
of the public sector, formed by a critique of the Public Administration paradigm (Hood, 1991).
According to the critique, public sector institutions, especially in health care and education,
were too authoritarian and inefficient. This critique arose in the 1980s and resulted in a series
of public sector reforms inspired by private sector corporations. The private sector was seen as
having higher levels of service orientation and efficiency than public institutions. According to
the New Public Management paradigm, public institutions should be managed like private
corporations (Torfing, 2012). Accordingly, public sector employees should be friendly and
flexible providers of services to the citizens, who have paid for the services through taxes. As
tax-payers, citizens should be treated as customers and consumers of public services. Like
customers, citizens should have a choice between service providers whenever possible and their
wants and preferences should be taken into consideration by service providers of all kinds;
policing, healthcare, education, etc. It is in accordance with this paradigm that public
institutions have had an increasing focus on efficiency and the evaluation of customer
satisfaction (Thomas, 2013).

The New Public Governance paradigm emerged out of a recent critique of New Public
Management as being too focused on competition and consumerism at the expense of
collaboration and partnership (Osborne, 2006). According to the New Public Governance
paradigm, public sector institutions should not only provide services but also involve citizens
in general, and users of specific services in particular, in order to engage as many parties as
possible in the decision-making and execution of services, especially when such decisions
involve the parties themselves. Involvement can increase both the perceived quality and the
democratic legitimacy of services in a democratic society. It is in accordance with this paradigm
that public institutions have started to focus on collaboration with private and non-governmental
actors across sectors and perspectives, especially users and citizens, in order to strengthen the
support to public organizations (Torfing, 2012).

The Public Administration paradigm, the New Public Management paradigm and the
New Public Governance paradigm represent three conceptions of the role of public sector
organizations and their employees. They are not historically distinct periods, but ideal types
that can be used to describe the ideas and ideals that drive public sector reforms and
relationships. As the development of new paradigms suggests, new ideas and ideals for the
public sector have emerged, but this does not mean that already established ones dissolve and
disappear completely. In other words, new ideas do not completely substitute the older, but
instead supplement them, and add to the complexity of public institutions. Although we have
witnessed a series of reforms of organizational structures, such as the integration of universities
and academic libraries, which have been chiefly influenced by the New Public Management
paradigm’s perspective on the benefits of efficiency and economies of scale, “older” concerns
about expertise and specialization are still important. As a consequence, one can find elements
in academic libraries today that draw the New Public Governance paradigm, but there are also
elements that draw the New Public Management paradigm and the Public Administration
paradigm. This includes the current interest in co-creation. Although the interest in co-creation
has increased with the New Public Governance paradigm, the raison d’être of co-creation is not
limited to this paradigm. Certainly, it can be about involvement and collaboration in its own right. These are, after all, key concerns of the New Public Governance paradigm. But it can also be about increasing efficiency and reducing costs, which are key concerns in the New Public Management paradigm. Or it can be to qualify the expertise and authority of professionals, which are key concerns of the Public Administration paradigm. The raison d´etre of co-creation in an academic library, then, is complex in the sense that different rationales can complement each other.

A conceptual model for co-creation with students

As mentioned above, the library has recently become interested in co-creation, i.e. not only offering but continuously creating products and services together with users. Therefore, the library participated in a Danish national project on co-creation with students, aimed at testing and transforming methods of co-creating with students in ways that are relevant for academic libraries. Research indicates that co-creation can contribute to innovation processes in higher education where students can contribute to the innovation of teaching activities and learning in general (Cook-Sather et al., 2014) and at academic libraries in particular, where co-creation with students has contributed to the development of web-portals, blogs and use of social media (Islam, Agarwal, & Ikeda, 2015a). However, it is not described in detail how the co-creation relationship is established, nor how the collaboration is facilitated. In other words, co-creation is defined in general terms, for instance as “a bidirectional interaction between the service provider and the user” (Islam, Agarwal, & Ikeda, 2015b, p. 640) or as a relationship in which ”staff and students work collaboratively together with one another to create components of curricula and/or pedagogical approaches” (Bovill et al., 2016, p. 195), but the aspects of the “interaction” and “collaboration” are not described in detail.

Research indicates that co-creation is a complex phenomenon with different definitions and descriptions. This suggests that there is not one best practice of co-creation, but various approaches. This does not mean that “anything goes”, but that methods and approaches depend on the point and purpose of co-creation in a specific context. Although there is no one best practice, there is a best fit between aspects in a given context. Based on the case analysed here, we have developed a model that illustrates the interrelation between four key aspects of co-creation: The purpose (what is the point?), the partners (who is involved?), the processes (how is the collaboration organized?) and the product (what is the outcome?). The dynamic relationships between these aspects are illustrated in Figure 1.
As the model (Figure 1) suggests, the four aspects should fit together, i.e. be aligned and adjusted in accordance to each other in a particular context.

One important aspect is the purpose of co-creating with students. Why is it interesting to co-create with students? As mentioned above, co-creation can have several rationales and in the case of the library studies here, there was. The main reason for involving students was relevance, as seen from the students’ point of view, i.e. legitimacy in the sense of New Public Governance. In the case described, the library wants its products and services to be considered relevant to its users. At the university, knowledge and skills are usually considered to be transferred to the students via a hierarchical and exam-oriented system. Co-creation can be seen as an alternative to this way of thinking. In co-creation, the students’ resources are considered to be an important and fruitful supplement to the resources of the academic staff. The collaboration should be considered as a laboratory in which their ideas can be taken up, developed and applied. Thus, the main reason for the library to produce podcasts in collaboration with students was that the students should have a sense of ownership of the product. However, at the same time, podcasts are cost-effective e-learning products. Once produced, the students can use them whenever they want and need to, without further help from staff. So, efficiency in the sense of New Public Government is also a rationale for the interest in co-creating podcasts with students. Further, the library staff also contributes and can ensure an amount of expertise and quality in the sense of Public Administration – as well as ensure that the podcasts comply with copyright rules as well as with the standard layout of the library’s products and services.

Another important aspect is the choice of partners. Who should be involved? Sometimes, students are involved in co-creation projects “simply” as individual students who are willing to collaborate with academic staff on learning and teaching issues (Bovill, 2014). However, sometimes students can be involved because they have a particular technical expertise (if this is needed in the project) or an interest in institutional politics (if the project involves educational or organizational politics). In the case described here, the library decided to have an “open” strategy towards the recruitment of students and invited anyone with an
interest in the project, since the library staff already had the necessary technical competencies and were not expecting the podcast to be an issue of institutional politics. In other words, the library wanted the students to participate as students only and not as employees or politicians. Since the main goals were to integrate the experiences of students into e-learning products and services, the library was mainly interested in involving master students in this project as their greater experience may have afforded them more insight. The library had decided to have a small group of three to four students in order to work fast, so when three students had agreed to participate, they set up a first meeting between the students and two members of staff.

A third aspect of co-creating with students is the process of collaboration. How is the co-creation facilitated? The parties in co-creation should work together in order to engage and exploit all the resources in the group. This is the reason why dialogue between the parties is key to the co-creation process from beginning to end. In the case described here, the library used doodles to arrange a series of meetings when the group was formed. At the first meeting, students and staff shared reflections and expectations with regards to the general topic “academic practice” and discussed the intended focus of the podcasts. The library staff tried to create a playful environment in which the students’ ideas and experiences could come into play. The meeting ended with a list of ideas and a second meeting was arranged. At the second meeting, the library staff and students decided to focus on “the research paper”, i.e. how to read and review a research paper. The partners decided to interview researchers to ask the kind of questions that students have with regard to the research paper as a genre, especially the questions students ask when they are actually working on a paper. In other words, the questions should spring from the experiences of the students rather than the knowledge and expertise of the library staff. Together, the staff and students made a long list of questions, grouped them, and summarized them into an interview guide. Then, they discussed which researchers to interview for the podcasts and decided on two researchers at DPU within different fields. The library staff and students agreed on who would contact the researchers and arranged interviews with them for a third meeting. At this third meeting, the library staff and students conducted two interviews. One of the interviewees had raised a critique of philosophically oriented research, which led the students to suggest that a subsequent interview with a philosophy researcher at DPU be conducted. So, the library staff and students arranged a fourth meeting, during which they conducted a third interview.

The fourth aspect is the product of the co-creation. What is being created? In the case described here, the product was a podcast about the research paper as a genre, which can be used by the students, as a service offered by the library. The podcast give advice to students regarding how to read and write papers, however, not in the sense expected by the staff. Rather than focusing on “how to do it?”, which assumes that there is only one way, the podcast focused on the fact that researchers have different views on research papers; a common student experience. The co-creation process, then, was very productive in the sense that the students had a strong impact on the end product. Further, the library staff learned a lot about collaborating with students. In addition to the podcast, the library gained important knowledge about the students and how to collaborate with them.

Through the collaboration with students, the library staff learned that many students have difficulties with writing and reviewing papers, and by taking the questions of students as a starting point (and interview guide) for the podcasts, the end product is very helpful to
students. The library staff also learned that co-creation with students can be very productive, especially when the purpose relates to the core aspects of the university and the process engages the experiences of the students. Researchers have also supported the idea of producing podcasts for students and have been very willing to give interviews about their perspectives on the research paper and offer advice for students. There is a huge potential, then, in collaboration between different parties and stakeholders of university libraries. In summary, the library obtained both a podcast, as well as a new perspective on their library practice, from the project.

As the description of the four aspects makes clear, there are huge potentials in co-creation with students. There are, however, also tensions related to the four aspects, as well as to their interaction with each other. The four aspects should fit together, i.e. purpose, partners, processes and products should be aligned, and if they are not, they should be adjusted. In the case described here, for instance, the students were happy about the idea of producing podcasts. But if that had not been the case, then either the purpose, or the participating students, would have to have been changed and the processes and end product would have been changed accordingly. Consequently, co-creation with students requires ongoing monitoring of the alignment of the aspects – a monitoring that can involve not only the staff but also the participating students in ongoing dialogue at a meta-level about the way co-creation works.

**Potentials and tensions in co-creation with students**

When monitoring co-creation with students it can be helpful to consider the overall purposes of co-creation with users, which derives from the three paradigms of the public sector. The competing ideals of these paradigms can be helpful points of reference or orientation, since they highlight the overall potentials of co-creation with students and the tensions between them.

Taken together, the tension between the *Public Administration* paradigm and the *New Public Management* paradigm represent a tension between quality and efficiency as the main points of reference for public services, whereas the tension between *Public Administration* paradigm and the *New Public Governance* paradigm represent a tension between authority and legitimacy as the main points of reference for public services. We combine the two tensions in Figure 2 to highlight four main potentials of co-creation with students. The four potentials are `ideal types´, i.e. analytical categories for heuristic purposes.
One point of reference for co-creation with students is *user relevance*. This is typically based on an evaluation of the extent to which the users find the end product meets their needs, for instance, by involving users in the definition of success criteria as well as in the evaluation of the extent to which these criteria are met. User relevance is often part of the very purpose of co-creation with users. This is not without problems, however, since the users can have limited insights into their needs and the possibilities of meeting them. The users’ evaluation of relevance can differ from – and create a tension with – the staff’s more specialized views on the users’ needs and how best to meet them (Ewert & Evers, 2014).

*User satisfaction* is another, albeit related, point of reference for co-creation with students. Like user relevance, user satisfaction is based on an evaluation by the user, however, it stresses wants rather than needs, i.e. it focusses on the extent to which users find that the end product is interesting and easy to use, rather than dull and difficult. This is typically based on an evaluation of the extent to which the users are happy about the end product, for instance compared to other alternatives. Today, user satisfaction has become a key benchmark indicator and criteria of success in many public organizations. This is not without problems, however, since the level of satisfaction tends to depend more upon the expectations than the actual services provided (Latu & Everett, 2000).

*Organizational efficiency* is a point of reference which is also related to the ease and efficiency with which a service is provided. Not, however, from the perspective of the user, but from that of the library. Like user satisfaction, efficiency has become a key benchmark indicator and criteria of success in many public organizations, especially as part of the *New Public Management* paradigm. At academic libraries, this focus is often addressed in terms of “sustainability”, in the economic sense of the term. This indicates that the library is interested in developing services that are efficient in the sense that they involve no, or limited, staff resources. This is not without problems, however, since a focus on efficiency tends to simplify conceptions of the services provided (Thiel, 2002).

Finally, *professional quality* is a point of reference, which is based on a professional authorized evaluation of the extent to which a product or service meets relevant needs in a
qualified manner. Traditionally, library products and services have mainly been evaluated in terms of their quality, as assessed by librarians, whose criteria of success relate to professional standards and values. These criteria are still important, also in co-creation with students. They are not, however, without problems, since they tend to focus on technical details, which are not always relevant to the users and their experiences (Priestner & Borg, 2016).

The four points of reference in Figure 2 are ideal types, i.e. neither ‘ideal’ nor ‘typical’ but analytical categories for heuristic purposes. They serve to identify the overall potentials in co-creation with students, which can contribute to user relevance, user satisfaction, organizational efficiency and professional quality of library products and services – even when this contribution occurs simultaneously across reference points (marked as overlaps in Figure 2). As a consequence, the potentials have tensions within them in the sense that they can become problematic if they are taken alone or too narrowly. Co-creation is a way to avoid this – however it can also be a way to pretend to avoid this. A review of the literature concludes that co-creation can be manipulative in the sense that the purpose is contested and some of the parties can feel cheated if the purpose that they are interested in is not the only, let alone dominant, one (Voorberg et al., 2014). So, an important potential of co-creation is to allow for a common exploration of the potentials of co-creation and of the ways to exploit them. Figure 2 serves this purpose. For instance, the library staff experienced that their professional expertise was mobilized in the co-creation with students not, however, as an authoritative evaluation, but rather as a driver for collaboration and continuous reflection on both relevance and rigor. More specifically the professional expertise was a driver for asking productive questions to students, which help the students to add nuance to their reflections. At the first meeting, students and library staff agreed that questions were productive for the collaboration as a learning process where both parties learn. To be in doubt and ask questions are key characteristics of learning and of being a student at a university. The students and library staff therefore agreed that no questions were too “stupid”. However, it requires background knowledge to ask productive questions that facilitate dialogue and reflection, and it turned out the questions raised to the students by the staff were particularly productive in the development of interview questions for the podcasts. The different backgrounds of students and library staff, on the other hand, were productive for the dialogue. The four points of reference, then, were helpful in explicating and exploring the values driving co-creation with students. The points of reference were discussed at the outset of the collaboration between students and staff and during preparation of the interviews and the production of the podcasts.

**Conclusion**

Co-creation with students has received increasing interest as a way to develop products and services in higher education. Co-creation with students is involving students not only in teaching and learning activities, but in the very development of teaching and learning products or services. However, there is no general agreement about what this entails. The concept of co-creation has been used in different contexts and the inherent tensions are usually not addressed.

In this paper, we have described a conceptual model for co-creation with students and explored the potentials as well as the tensions inherent in co-creation with students at academic libraries. The case study indicates that although there is no one best practice there is a best fit
between the purpose, the partners, the processes and the product. The four aspects should fit together, i.e. purpose, partners, processes and products should be aligned and if they are not, some of the aspects should be adjusted. Further, the case indicates a tension between four potentials of co-creation with students; user relevance, user satisfaction, organizational efficiency and professional quality. The potentials are presented as general points of reference, i.e. as 'ideal types'. The ideal types, however, are neither 'ideal' nor 'typical', but analytical categories and for heuristic purposes only. They indicate the overall potential in co-creation with students and the tensions between them.

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