Product Report
Crowd-Curation Service

Master Thesis By Esben Grøndal and Begum Becermen

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Start: 01/02/2016
End: 28/04/2016

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Introduction

This report details a proposal for a new service offering by the cultural department in the Black Diamond in Copenhagen. The concept was developed in close collaboration with the Black Diamond, but it is essentially scalable and applicable to other, similar cultural institutions.

The project has been running in the Spring semester of 2016, from the 1st of February to the 28th of April, as part of a master thesis on client-consultant interaction in a service design project which is finalised on the 2nd of June 2016.

FINAL DELIVERABLES
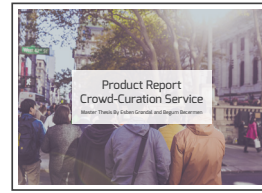
Product report
This report provides an overview of the proposed new service concept: the components, the stakeholders and the impact. In addition to a description of these, the report will also specify how the new service could be implemented, as well as describe how a prototype of the service might be created without the need for any cumbersome technical development.

Idea Catalogue
This idea catalogue (see separate booklet) is an overview of the ideas generated together with students and staff at the Royal Library and the Black Diamond over the course of three ideation workshops. The ideas are not developed or polished in anyway, but they might provide inspiration for future initiatives. For the X biggest ideas, the booklet also provides inspiration for how a so-called pretotype might be conducted. A pretotype is essentially a way to test the market-acceptance of a given idea, without developing a more demanding prototype.
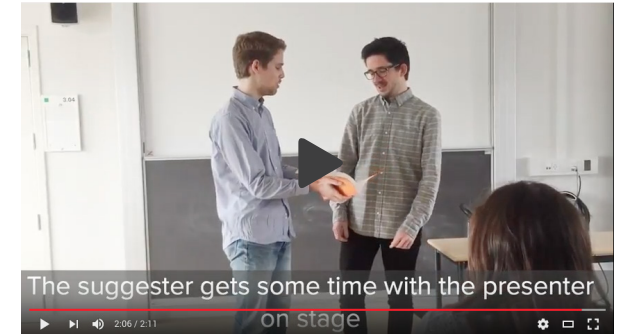
Concept video
This video is a walkthrough of how the service would work from the perspective of the student. It is not meant as marketing material, but rather as a way to easily explain the concept to people who have not been part of the process.

The video can be seen on this page: **https://www.youtube.com/watch?v=YbcBPukrrPE**

Timeline of process

The process behind the development of the proposal is described in detail in the separate process report, but in this section we will briefly touch upon four critical phases to give an idea of how the concept came to be.
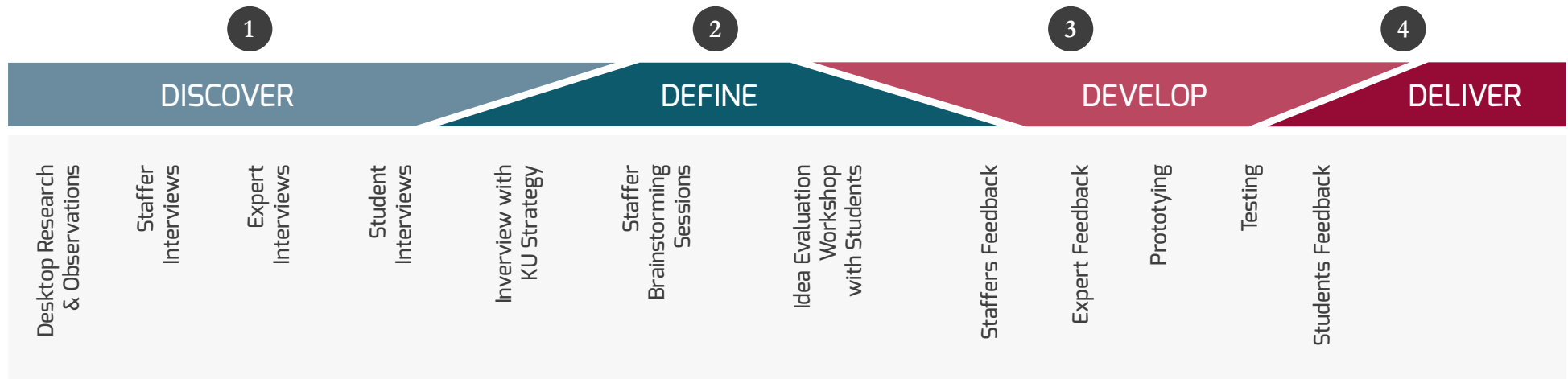

Figure 1

1. Research Milestones
It has been important for us from the beginning to ground our process in the actual experiences and considerations of the staff and users on the ground. But in order to approach the challenge from as varied angles as possible, we also made sure to talk to experts about libraries in general, and the challenges different kinds of libraries are facing.

2. Defining Activities
We are humbled by the history and societal position of the Black Diamond and the Royal Library, so as we started defining the problem challenge, we stressed the importance of coming up with ideas together with staff, and evaluating the suggestions with students.

3. Development Work
In order to choose which concept to develop, we presented three viable concepts to our contact person and decided on which to pursue together. As development progressed we went back twice to talk to different staffers about their impression of the service concept, and we consulted with an external expert in behavioral design about the basic behavioral mechanisms of the idea.

4. Testing
In order to test the basic mechanism of our service - to see if students would care to use the service at all - we deployed a pretotype at the AAU Copenhagen campus. The test was modest in scope and scale, but it gave an initial, encouraging hint that the service might not only work but also be relevant to the target audience.

The Challenge

The service coordinator at the Black Diamond, Maria Christensen, had formulated a project around how we might improve the experience for students at the Royal library and the Black Diamond. After researching the current experience and viewpoints of several stakeholders, we reformulated the brief and got the backing of Maria. The new focus was about how the library might become more of a platform of learning, rather than a silo to access.

We are confident that the proposed solution is a valid and relevant answer to the defined challenge.

Constraints and Requirements

The concept was developed within a framework of more or less explicitly stated constraints and requirements.

Low cost
First and foremost was the fact that every cultural institution in Denmark faces budget cuts, in order to comply with the government's plan to funnel more funds to core welfare services. This meant that the service offering would have to be very low cost, in order to be considered.

Anchoring
Although not a specific requirement per se, it became clear through our process, that the budget cuts were putting pressure on the whole organisation. Since the project was originally proposed by Maria from the culture department, we strived to anchor the project in the culture department.

Strategic fit
It was important to make sure that the new service offering would align with the strategic vision of the organisation. The offering should expand on the activities of the organisation in a meaningful way.

Timeframe
Within the timeframe of three months we wanted to hand over the deliverables of the project, in order to clearly delineate the case study within our thesis.

Student needs
Starting from the original brief, the project was supposed to support the student-user group of the Black Diamond. That meant that while we did start our research with a very broad scope of the role a library can play in a community, we quickly fixed our attention on the kind of value a research library and cultural institution such as the Royal library and the Black Diamond provide students with.

New Service Offering

The new service offering: Crowd Curation

The basic principle behind the proposal is simple: allow students to suggest and vote for speaking events. As it is now, anyone can of course send an email to the culture department, and suggest a speaker, but that request will simply be one of the many ideas already in play in the department, and the department can not know if there is an actual demand for the suggestion.

Goal and positioning
The overall aim with this service is to position the library as a natural extension of the students' learning journey. This should be done in a way that connects the core competencies of the culture department to student needs. With more emphasis put on students' learning activities outside of the classroom, there is an opportunity for the culture department to support the library's role going forward.
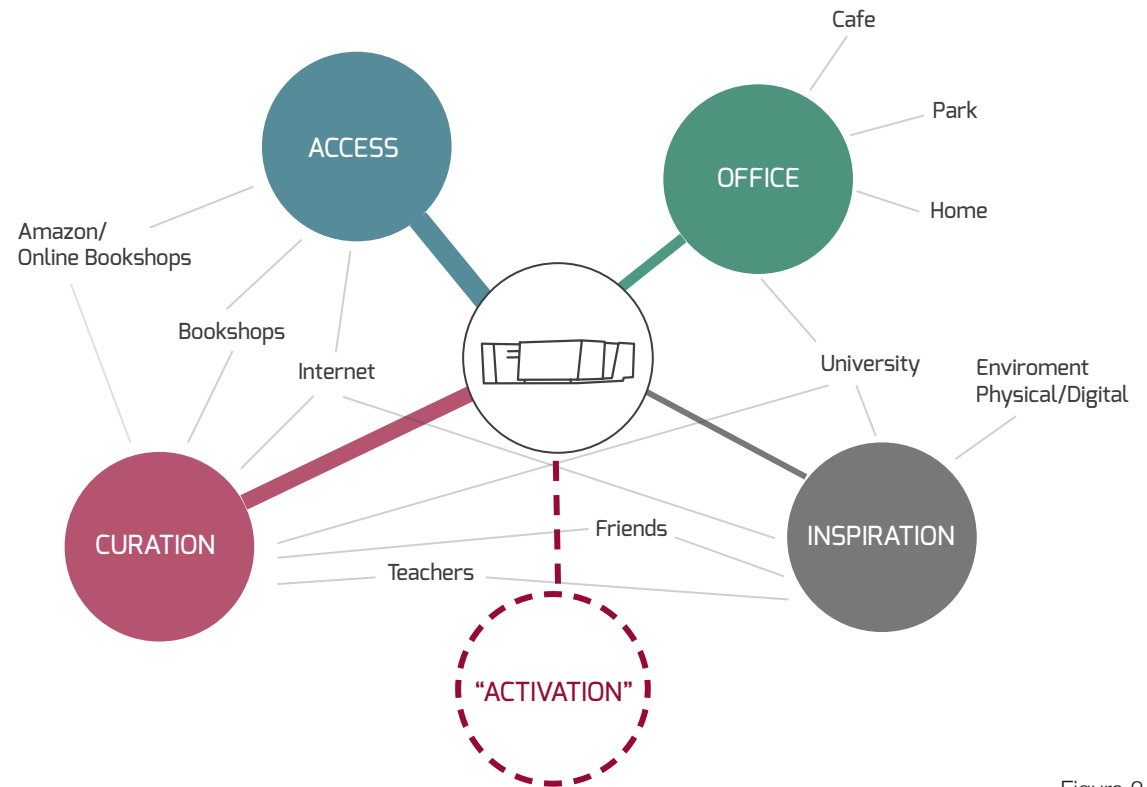

Figure 2

The diagram in figure 2 shows the main ways the library provides value to students. It provides inspiration, curation, access and concentration - with the thickness of the lines indicating the importance of each value to the users interviewed. With this service, we are connecting the culture department and their work for students in the Students Only-club, which provides (free) cultural events, with key persons within areas of interests of the students, which they might not have access to.

By adding such a crowd curation service, the Black Diamond displays a commitment to providing students with what they need to enhance their studies. The service opens up for an offering of what we might call "activation" of learning. This is what happens when the knowledge that is transmitted in classrooms and textbooks can be activated in a new context. This value-offering is aligned with the values of curation and inspiration that the culture dept. in particular is in charge of. The service opens up and explores a new space of opportunity. To be sure, other ideas also exist in this space, but we hope that we provide inspiration to think from.

Crowd-Curation | User Journey

This diagram is a visualisation of the flow of the service.
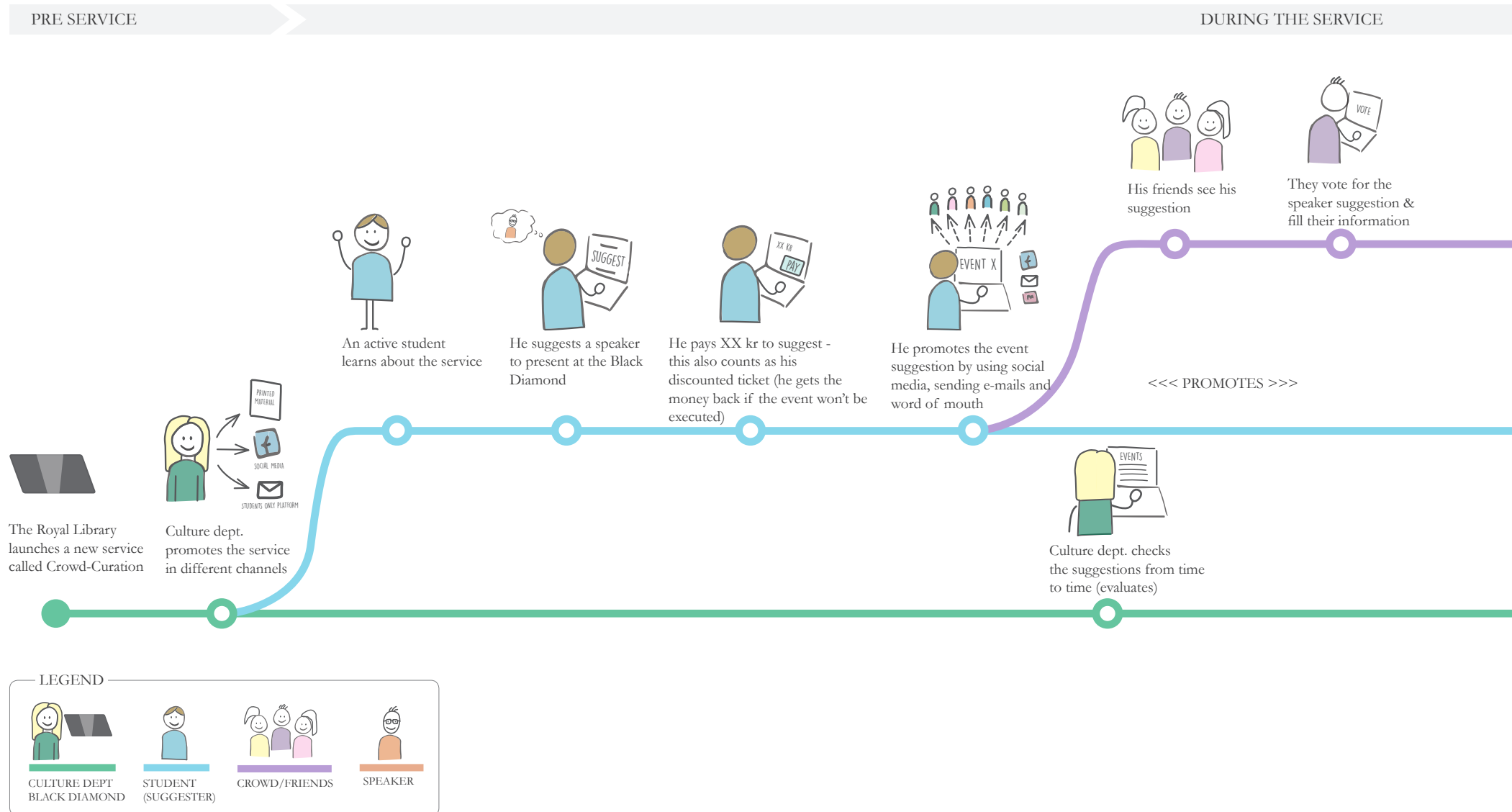What happens when, and who will do what.

His friends see his
suggestion

They vote for the
speaker suggestion &
fill their information

VOTE

An active student
learns about the service

SUGGEST

He suggests a speaker
to present at the Black
Diamond

XX KR
PAY

He pays XX kr to suggest -
this also counts as his
discounted ticket (he gets the
money back if the event won't be
executed)

EVENT X

He promotes the event
suggestion by using social
media, sending e-mails and
word of mouth

<<< PROMOTES >>>

PRINTED
MATERIAL

SOCIAL MEDIA

STUDENTS ONLY PLATFORM

The Royal Library
launches a new service
called Crowd-Curation

Culture dept.
promotes the service
in different channels

EVENTS

Culture dept. checks
the suggestions from time
to time (evaluates)

LEGEND

CULTURE DEPT
BLACK DIAMOND

STUDENT
(SUGGESTER)

CROWD/FRIENDS

SPEAKER

Figure 3

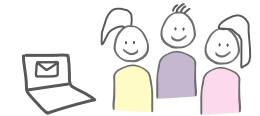Voters can share the event to their network

Voters recieve the e-mail about the date of the event and discount info

Voters should buy the ticket quickly to get a discount

<<< WAIT >>>

Voters get the thank you e-mail and checks the voting list, might suggest a new presenter

The suggester recieves the e-mail that confirms the event and learns the date

<<< PROMOTES >>>

<<< WAITS >>>

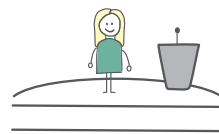The suggester gets the thank you e-mail and checks the voting list and might suggest a new presenter

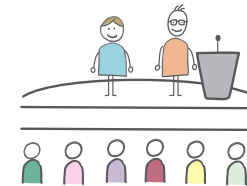When the suggestion gets enough votes Culture dept. contacts with the speaker and arranges date

Culture dept. sends event confirmation and the date to the suggester and all the voters

Culture Dept. might promote more if the event is not sold out

Culture Dept. arranges the event setup

The event takes place and the students who suggests gets 5-10 mins meeting opportunity with the speaker

After the event, Culture dept. sends thank you and information e-mails to all participants

The speaker confirms the speech and the date

The speaker gets the thank you e-mail

Motivation

Why would this proposal be relevant to anyone involved?

In the diagram in figure 4 - a so-called motivational matrix - we consider the motivations of different stakeholders to participate in the service. As the owner of the service, the relationships which the culture department of the Black Diamond engages in, are highlighted.

GIVES TO	STUDENT	BLACK DIAMOND	PRESENTER	CROWD/ FRIENDS	EXTERNAL FUNDER	UNIVERSITY	REGULAR CUSTOMER
STUDENT	"I want to get smarter. I am curious, interested, active"	-inspiration -engagement -audience	-buzz/attention	-relevant presentation -idea about event they can join		supporting their education (from student perspective)	
BLACK DIAMOND	platform/ opportunity to meet influential people	want to engage student, and be more in the mind of students	-engaged audience -speaking opportunity at the	-relevant event -chance to shape programme	brand recognition	meaningful activities outside of studies at uni	events
PRESENTER	presentation of dreams	relevant programme	-money -prestige -motivated	presentation			
CROWD/ FRIENDS	enable the event	-money -"future audience" -more audience	audience (motivated)	curious, active			
EXTERNAL FUNDER		money			get their name out there		
UNIVERSITY	information	network for promotion /platform		information		support their own strategy about	
REGULAR CUSTOMER		money					entertain/ learn (normal event)

Figure 4

Stakeholder Map

The diagram in figure 5 is a graphical representation of the stakeholders involved in the service - more or less directly. It also shows in a simplified way the kind of interaction that goes on between which stakeholders.

EXTERNAL

INTERNAL

STUDENT

FRIENDS/CROWD

CULTURE DEPT

UNIVERSITY /FACULTY LIBRAIRES

REGULAR CUSTOMER

PRESENTER

EXTERNAL FUNDING ORGANISATION

i ——▶ Information flow
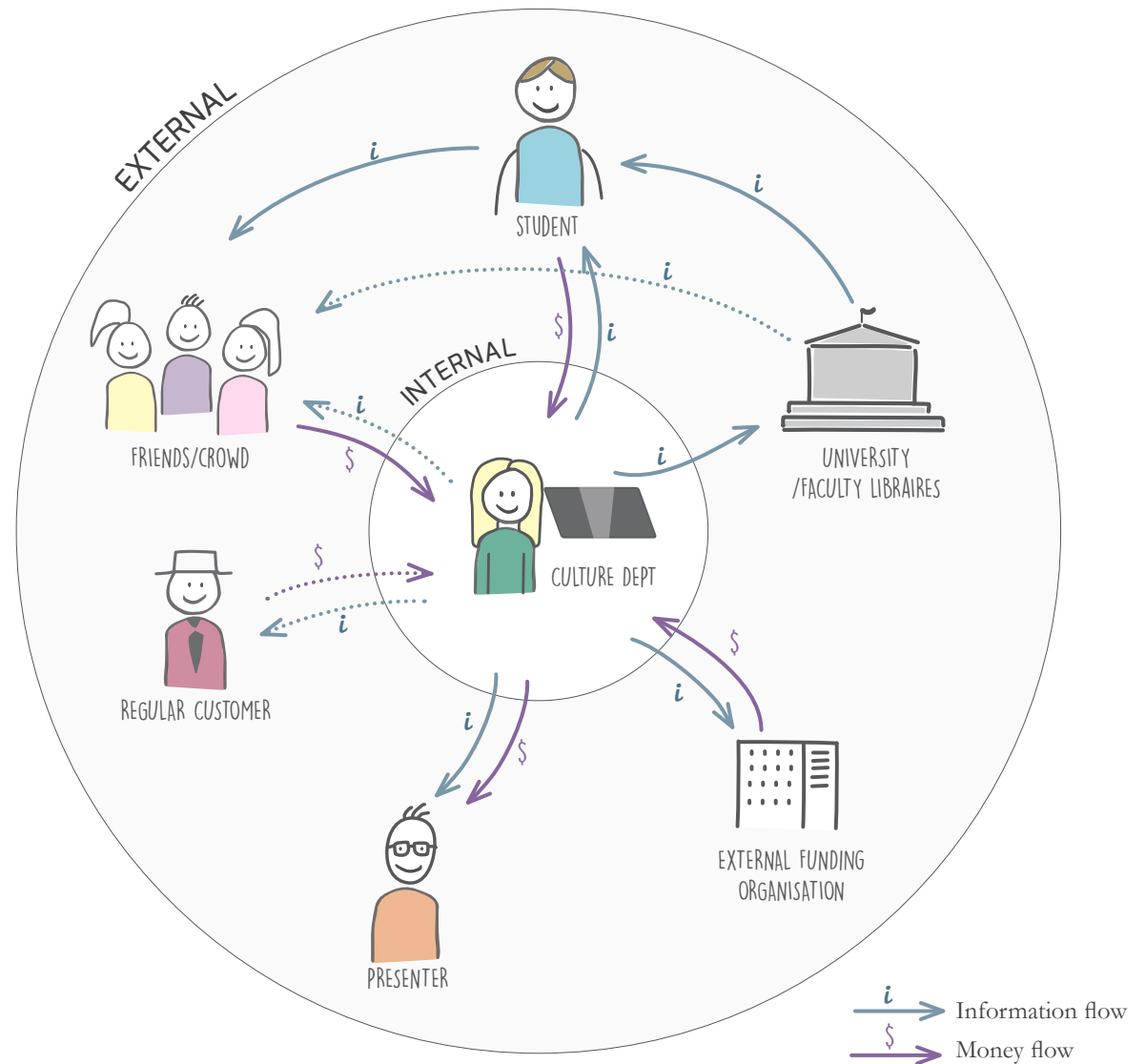
$ ——▶ Money flow

Figure 5

Touchpoints

In this section we present some of the major touchpoints in the service. A touchpoint is a place in time where an interaction happens between a service and the user.

WEBSITE

We propose a sub-section of the existing website to be dedicated to this service offering. The website will act as an easily accessible platform for suggesting and voting.

INTERFACES - SUGGESTING
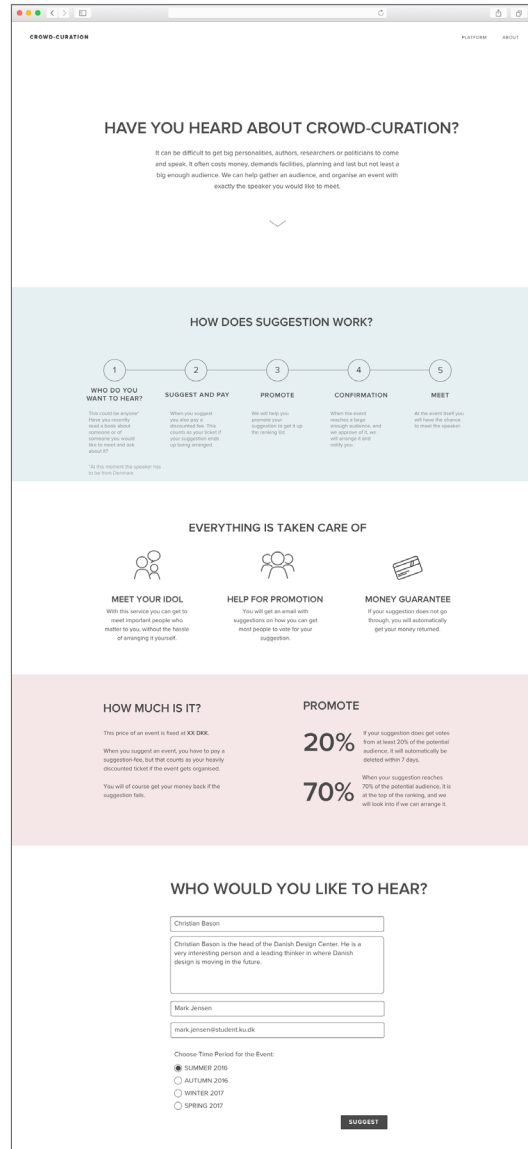
Figure 6
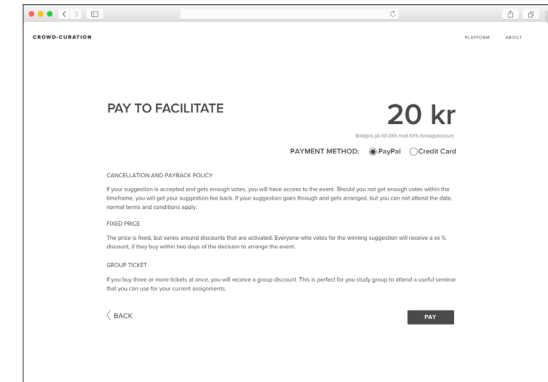
Figure 7
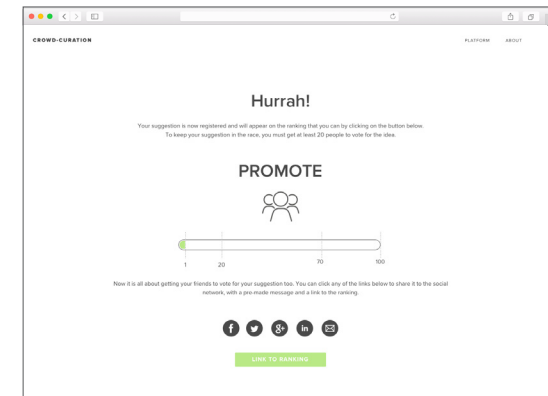
Figure 8

INTERFACES -VOTING
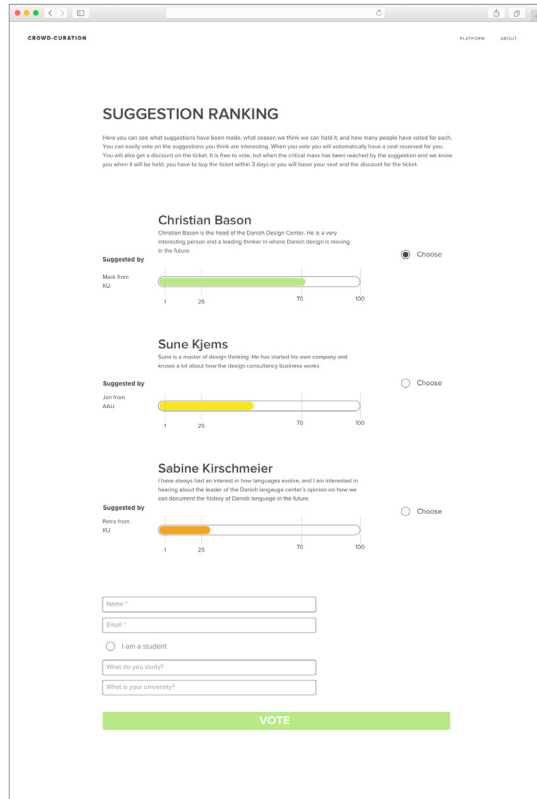
Figure 9
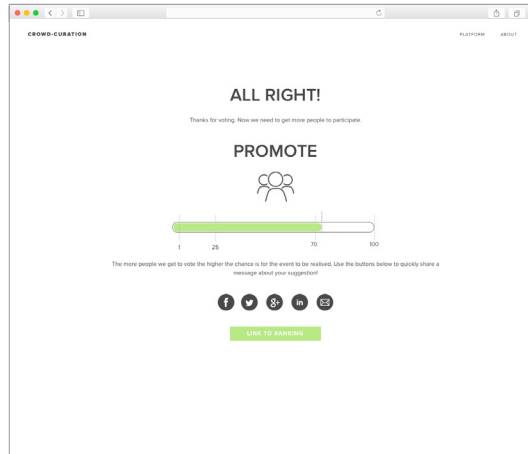
MAIL - HOW TO PROMOTE

When a student has suggested a speaker, they could receive an email thanking them for their contribution while encouraging them to promote their suggestion to friends offline as well as online. The importance of their promotion will be explained, as well as the incentive structure for more people to vote for their suggestion.
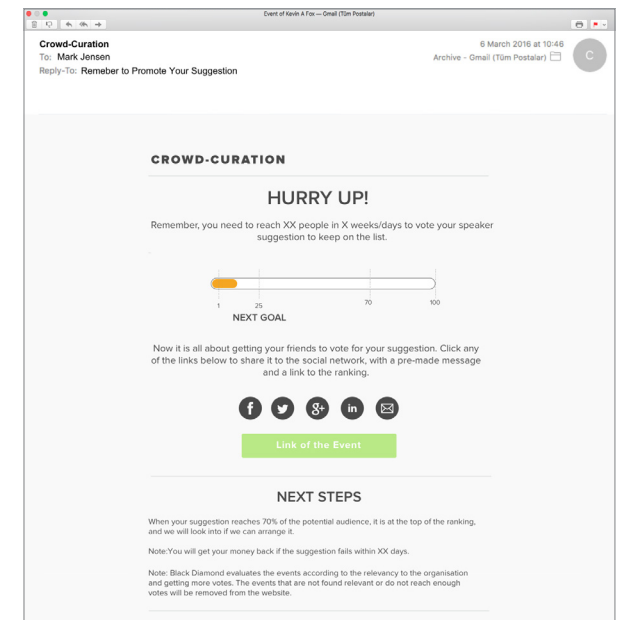
Figure 10

Figure 11

GOAL GRADIENT EMAIL

In order to sustain engagement once someone has suggested a speaker, we propose emails as a so-called goal gradient. A suggester would get a couple of mails as his/her suggestion reaches different milestones.

GOAL GRADIENT EMAILS FOR SUGGESTER

Figure 12

Figure 13

GOAL GRADIENT EMAILS FOR VOTER
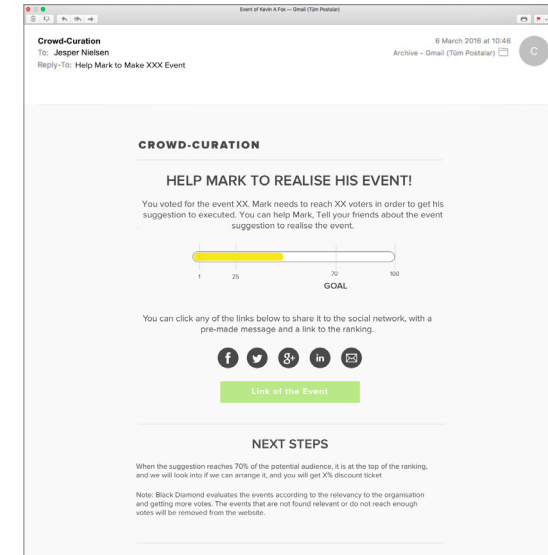
Figure 14
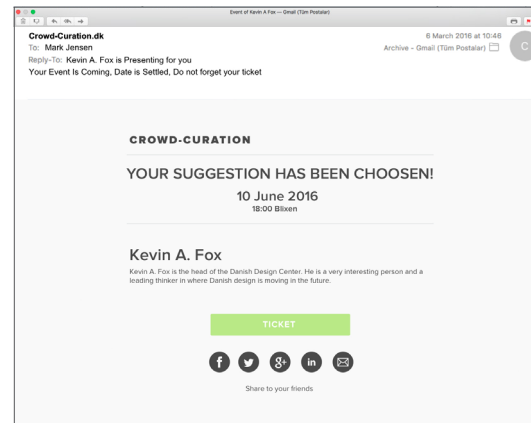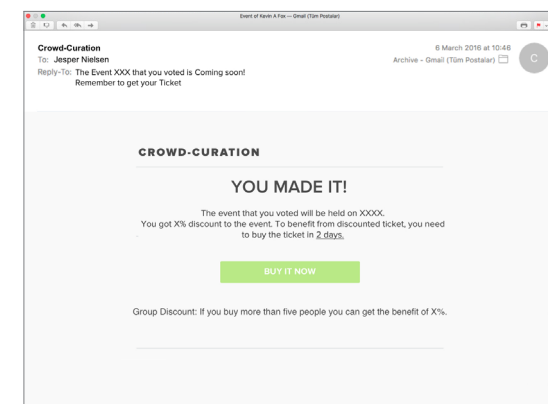
Figure 15

BASIC DATABASE STRUCTURE

In order to give a basic overview of how we envision the database to be structured, we provide an outline in figure 17. The actual database needed for implementation of the project will most likely contain a few more datapoints, but this will be up to the developer.
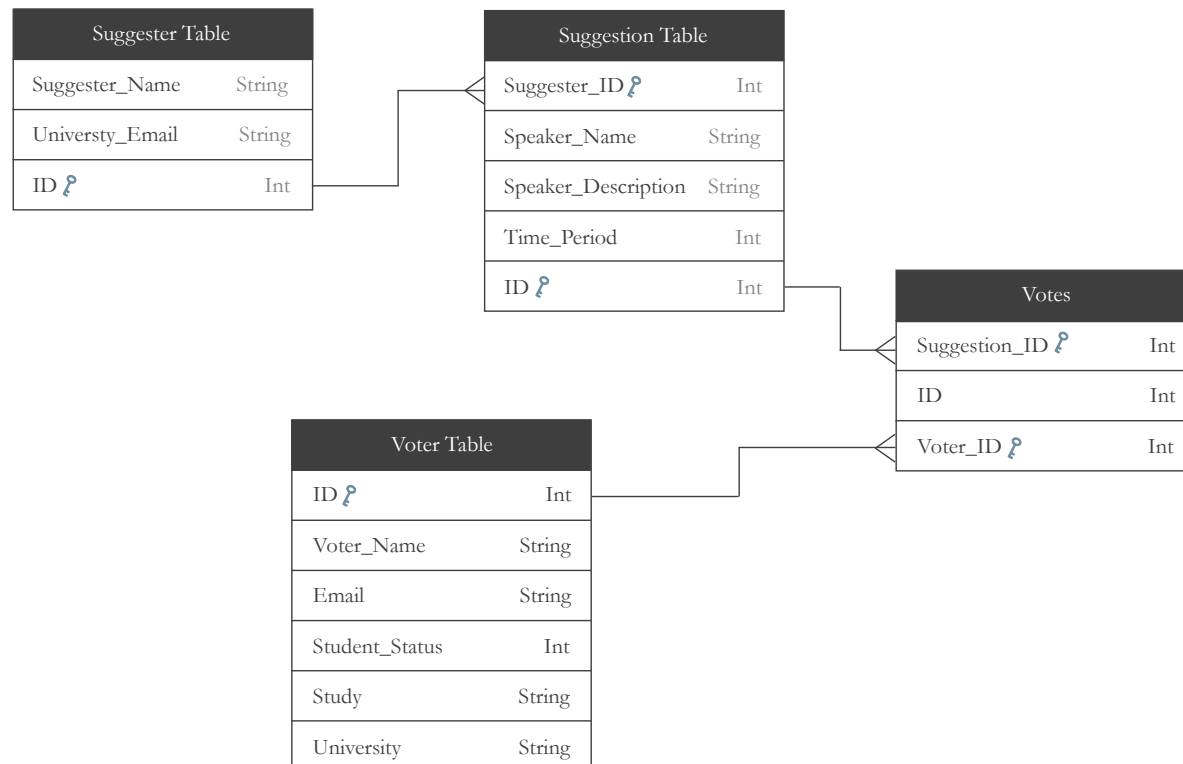
CALL TO ACTION WITHIN LIBRARY

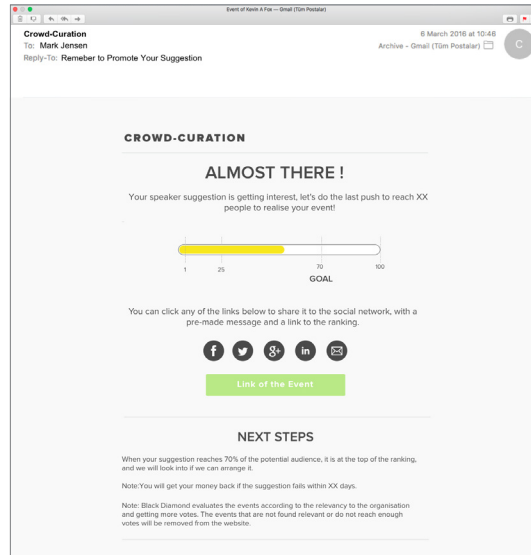In consultation with Simon Bentholm, founder and behavioral designer at KL7 in Copenhagen, we agreed that having a clear call to action in the moments where students would be most likely to act on it. For this we suggest printed materials such as posters in the black diamond and at the faculties/ faculty libraries. If the service takes off, it could be mentioned during KU introductions to library services.

Figure 17

Suggester Table	
Suggester_Name	String
Universty_Email	String
ID 🔑	Int

Suggestion Table	
Suggester_ID 🔑	Int
Speaker_Name	String
Speaker_Description	String
Time_Period	Int
ID 🔑	Int

Votes	
Suggestion_ID 🔑	Int
ID	Int
Voter_ID 🔑	Int

Voter Table	
ID 🔑	Int
Voter_Name	String
Email	String
Student_Status	Int
Study	String
University	String

Figure 16

Practical Considerations

In this section we detail some practical considerations with regards to the implementation of the service concept.

PRICING SCHEME

We have had good conversations with the producers in the culture department, but we can of course never have as good an overview as the staff working with organising events every day. This section is therefore only meant as an inspiration on how pricing structures within the service might work.

We recommend a fixed price. With a fixed price customers will know what to expect, and it makes it easier to grasp and work with the incentive structures proposed below.

Group discount

As one of the underlying goals of this is to get more students to use the diamond, and to connect the Diamond to students' learning journey in more ways, a group discount for ticket purchases could be introduced to encourage study groups to buy together. All university students are part of a study group as some point during their studies, so there might be a market.
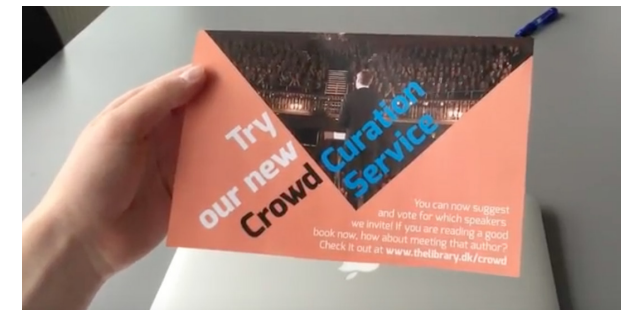
Suggester discount/fee

A student pays a small fee to suggest, but if the suggestion goes through, it also counts as a ticket. A heavily discounted ticket is therefore a good incentive to get students to vote, while also acting as a deterrent from unserious suggestions.

PROMOTION

The service can easily be incorporated in the existing promotion channels. The important thing is to create a sustained awareness around the service - at least in the beginning. The goal must be to have students associate the library with the kind of approachability and openness that the service enables. The students only club is a strong platform to reach people with. It might be something as simple as a mention in newsletters or in some Facebook-posts.

Student Incentives to Promote

The service offering encourages and relies on students to feel ownership of their suggestions, in order for them to contribute more to the promotion of the events. This is the core of the co-creational aspect of the service offering. But what are exactly the incentives that drive engagement?

The suggesters were motivated by the chance to meet someone they admired. But the testing-conditions limited their motivation to actually promote their. This was in part because they did not feel a competitive aspect, as the suggestions were very related to each other. In a larger test, the suggestions would be more varied Furthermore, in a larger test efforts could also be made to send out notification-emails that explains the benefits and tools of promotion.

With regards to the voters' incentive to vote, one way to underline the academic benefit of the presentations through the group-purchasing pricing scheme introduced before.

FUNDING

The implementation of this service would require external funding. As foundations do not fund operations, funding could be sought to develop the basic mechanism itself. But funding might also cover some of the ticket price, in order to lower it in the beginning.

AFTER-SERVICE

Once the event is succesfully executed, it is easy to consider the service flow done until the next time. But the after-service phase presents a good opportunity to follow up with the stakeholders, and emphasise the value-offering.

Automated "thank you"-messages to the voters, suggesters and the presenter(s) is a good place to start. For the suggester, it could be a link to a badge for LinkedIn, where she/he could display that they succesfully suggested an event. This might encourage pride in the participation, and would highlight the Diamond in new places.

For the voters, the email could encourage them to suggest their own event in the future. The email could also contain a link to a pre-filled citation-generator, where the presentation is cited according to various methods. This would be an academic equivalent of ending a succesful service-flow with a free piece of candy.

Futhermore, with all voter information stored in the database, it will be easy to get an overview of what kind of students are attending which seminars.

IMPLEMENTATION

In terms of moving forward with the actual implementation of the project, we are well aware that the current situation does not allow for any substantial investment. We are therefore suggesting two potential paths to follow, should the Black Diamond want to go forward with the new service offering.

Student Project
We have shown a draft of this report to associate professor at Aalborg university Georgios Triantafyllidis, in order to determine whether the project might be feasible to pursue for a student group in the future. The feedback was encouraging, and we were told that the project is highly relevant to consider as a student project. This report provides a good foundation for development to begin from, but we will briefly summarise what we at this point can see would be needed of such a project. These points will hopefully also help the Black Diamond to lead such a project better.

Required resources
It is important to note, that the service proposed in this report is not supposed to add more work to the cultural department's event staff. The department is very busy already. Rather, the service is meant exist as a supplement to the way the department plans and arranges events.

Service components to be considered
-An addition to the existing website, or a separate domain (fx. www.kb.dk/crowd)

-The website needs a basic interface (as shown in the touchpoint section)
-A basic database structure to handle votes and suggestions
-A connection to a payment interface
-Setup of email-notification
-An existing mass-mail can be set up with the database

A student project would also entail testing of the developed pilot. This might be a UX-test of the website layout, and an engagement test of what is the better way to get students to promote a suggestion.

The project as described in this report is flexible, in the sense that any follow-up research conducted by students which suggest improvements to the service, should be welcomed. The authors of this thesis will not be able to participate in supervision meetings (at least physically), but will expect to be credited with the idea if the service is actually developed further.

This option would be close to free for the library to choose, as the solution could be donated by the university to the library. But this point should of course be discussed in later negotiations.

PROFESSIONAL FREELANCE DEVELOPER

We have reached out to a professional freelance developer, and asked what a realistic budget and time-frame might look like, should he be asked to do the project. The non-binding offer, valid until ultimo May, 2016, was provided by:

Morten Barklund
Sky.Garden
C/O KPH Projects
Enghavevej 80C
2450 København SV

The development would cost **68.000 DKK**. This includes a test-website that will be set up during development, so the client can follow the progress. The development should take 20 days.

The first year of hosting the solution at the developer's would be free. After this first year it would have to be hosted in-house, or it will begin to cost **10.000 DKK** per year.

Please see appendix 1: Developer personal correspondence for the technical specifications of the offer.

Proceeding with Testing

The pretotype test conducted at the AAU among master students provided encouraging results, but it is not enough to base a recommendation for a full implementation on. Rather, testing the principle on a larger scale would be natural next step. In this section we first go through what we learned from deploying a pretotype at AAU. Then we will outline how a larger test could be conducted, without the need to invest in any development of online service-components.

Findings
First of all it was encouraging to see how people are willing to pay a small fee to suggest, in exchange for cheaper access to their event. It was clear, however, that the benefits of promoting one's suggestion should be highlighted and actively encouraged. Likewise we learned that people are easily interested in considering and voting for the suggestion that appeals most to them, but taking it to the next level and having the voters promote their favorite events proved a challenge. This could be dealt with by introducing a small referral discount where a person would get a small discount for each extra student they got to vote - or it could be introduced later when selling tickets.

When talking to the people who suggested, it was also very clear that trust pays a significant role in the decision to pay money for something that is so uncertain. In our test it was personal trust, but it would seem likely that the principle would be transferrable to the trust and respect people have for the Black Diamond.

Stats on test:
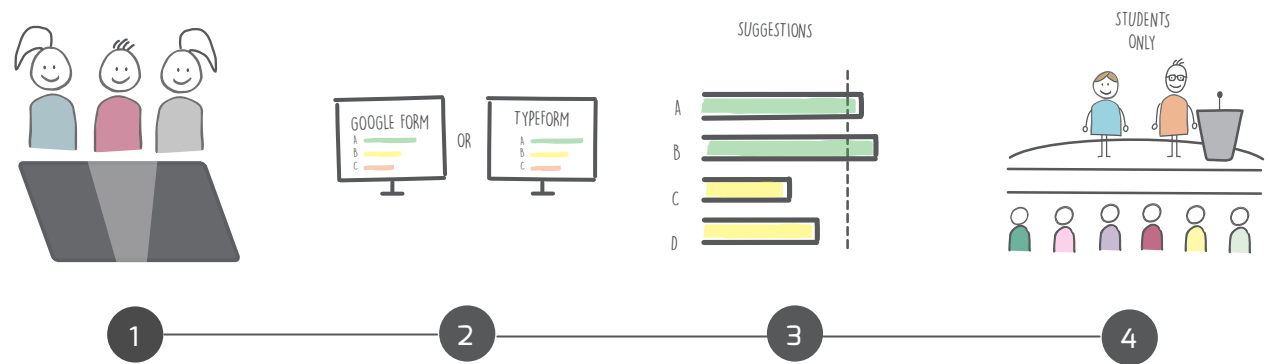3 suggesters / 15 voters / 45 seen

PROTOTYPE SUGGESTION

Figure 18

1.Suggestion phase
As we know suggestions will come when students are prompted for it, less attention can be payed to this phase. To keep it simple, we rather suggest that every student worker is asked to contribute a suggestion

2. Polling phase
Instead of having to create the actual platform, we suggest that a simple, free tool be used for the purpose. This could be a Google-form (http://forms.google.com) or a TypeForm-form (https://www.typeform.com/). A simple incentive-structure could then be put in place

3. Decision phase
When the votes begin coming in, it can be examined how fast a critical mass is reached

4. The event
A first event could be arranged as any other, but for example for students only at a lower "testing"-price. This would act as a way of promotion and key persons (winning suggester, some

Conclusion

This report is an outline of our proposed solution to how the Royal Library and the Black Diamond might be relevant to students in the future through a new service offering. The proposal is grounded in the needs and aspirations of the relevant stakeholders, and we are confident that a service such as the one proposed here, could serve as a stepping stone for a deeper relationship in the future between students and the Black Diamond.

Appendix 1

APPENDIX 1

DEVELOPER PERSONAL CORRESPONDENCE

Personal correspondence with Morten Barklund on April 28th, 2016

DESCRIPTION

This is an initial non-binding offer to develop, host and maintain a web application for crowdsourcing speakers for the Black Diamond library based on an idea by Esben Groendal and team. This offer is valid until ultimo May 2016.

The application is concerned with getting users of the library to suggest and vote for future speakers for events at the library and for the library to manage and facilitate this proces. This is done by users suggesting speakers, other users voting for speakers and upon reaching a set milestone within a set timeframe having the library make this talk possible by contacting the speaker, arranging the event and contacting all interested users about this.

There are several roles in this project. The library (and their employees) is the administrator of the entire application and has access to all information and can change everything. A user suggesting a speaker can update the information about this speaker as well as delete the request. A user voting on a speaker can only remove his own vote and not alter any other data on service. A user can both suggest speakers and vote for other speakers - thus having different access levels for different speakers. There can be only one "owner" of a speaker and only this user can edit the information.

The milestone required for a speaker to be chosen as well as the timeframe within which this number of votes must be collected can either be set by the owner or the administrator - to be determined later.

The administrators will have access to a content-management where all suggested speakers can be seen, edited and deleted as well as exported to spreadsheets or similar. Furthermore there will be a list of all users having either voted or suggested speakers and these can be seen, edited, deleted and exported as well. The user list can also be filtered by votes on suggested speakers so it is possible to export a list of users having voted for a given speaker.

The system will send emails to users according to a few rules. These are:

    -a welcome email, when a user signs up
    -a success email when a speaker is succesfully chosen (one to the submitting user, another to all the voting users)
    -a "warning" email to a submitting user when a speaker is about to fail because of the time limit
    All other emails must be sent by external services - including updates on the status of the event if and when it will happen after succesfull voting. If the administrator decides to delete users or speakers (e.g. due to duplicate entries or similar), the administrator must also manually email relevant parties if so desired.

The web application will be tested on and optimized for modern browsers (IE10+, etc) as well as tested on mobile device down to an iPhone 4 screen size.

The web application will besides the content management have a front page, one or more static about pages, a speaker listing with filters for current or past speakers, a speaker entry with information about the speaker, a speaker submit form as well as edit form plus a profile page for users where they can see their voting and suggesting history.

This offer does not include editing the static content - e.g. changing text on the front page, images on about pages or similar. The only content that is editable are the speaker listings. This offer also does not include any event management including emails besides the voting as explained above. Nor are there any payment services or similar included.

SCHEDULE AND DEADLINES

The development of the above web application will have a development time of **20 days**. During the development, a test website will be provided for the client to see the project as it develops. At the end of the 20 day period, two test rounds with corrections will take place until final delivery.

Before the project can be started though, a flow, a design, all images and all text must be defined. This is the responsibility of the client to develop this. I will assist with flow considerations and we will create the final flow together. I can find great designers for the designs and images if the client does not have any preference.

When the project is delivered and up and running, I will provide support for all bugs found in the first 2 months after launch and critical (i.e. service breaking) bugs found

the next 10 months. I will also provide free hosting for the first year after which the client will either need to in-house the hosting or pay annually for the service.

TECHNICAL SETUP

The platform will be based on the open-source framework Django written in Python. Django 1.9 running on Python 3.5 will be used for this. The database will most likely be PostgreSQL.

The web application will either be classic static HTML-pages with design based on a framework such as boot-strap or similar, or - if the designer and client prefers - be a single-page application based on the newest stable AngularJS 1.x.

The recommended hosting is a Heroku setup with a single standard 1x dyno for the application and another for background tasks. If the application is popular, 2 concurrent web dynos can be run, but this is most likely not necessary.

PRICE

The total price for this given the above requirements and deadlines is **68.000 DKK**. This is to be payed 50% up front and 50% after final acceptance from the client. All invoices are to be paid within 8 days.

Hosting after the first year will cost **10.000 DKK** per year to be paid at the beginning of each year after initial launch.