

**Consider the streaming music platform Spotify. If you are not familiar with Spotify specifically, in the exercises below, imagine a generic music streaming service that includes a recommendation system.**

## **Part A**

**The first part of this lab will be to understand the affordances of Spotify's recommender system: What it does, what it makes easy, and what it makes difficult for whom.**

**Review the criteria for critical analysis discussed in lecture (stated again below).**

**Consider five different types of stakeholders: a well-known pop musician, a little-known independent musician, a fan of the well-known musician, a fan of the little-known musician, and the product manager of the recommender system at Spotify. (A product manager is typically responsible for elements such as what product features to develop, the business relevance of the product, etc) What might be the role of Spotify's recommender system in each of these people's lives? What might the system make easier or make more difficult for each person? In answering these questions, try to consider how Spotify compares to other means of distributing music (e.g., vinyl, compact discs, live music, other platforms like Bandcamp or SoundCloud, etc) in terms of comparatively what Spotify makes easy or difficult. If helpful, you may structure your response as a bulleted list or a table.**

	<b>POP art</b>	<b>Indie art</b>	<b>POP fan</b>	<b>Indie Fan</b>	<b>Prod. Manager</b>
<b>Vinyl/CD (analogue)</b>	More Difficult Than Spotify	More Difficult Than Spotify	More Difficult Than Spotify	More Difficult Than Spotify	More Difficult Than Spotify
<b>Live Music</b>	More Difficult Than Spotify	More Difficult Than Spotify	More Difficult Than Spotify	More Difficult Than Spotify	More Difficult Than Spotify
<b>Soundcloud</b>	More Difficult Than Spotify	Easier Than Spotify	More Difficult Than Spotify	Easier Than Spotify	Easier Than Spotify
<b>Tencent Music (kugou/qq / kuwo) or super apps</b>	Easier Than Spotify	Easier Than Spotify	Easier Than Spotify	Easier Than Spotify	Easier Than Spotify

Spotify recommender system makes both pop and independent artists more likely to be discovered by new users compared to live performances, and analogue system of music reproduction (vinyl/ cd), which are usually adopted when already familiar with a particular artist. Soundcloud is probably better suited for independent musicians, where it provides a tool to discover more underground artist before they get signed from a big label. Also in this scenario, the product manager can get helpful insight on how the user behaves, where having more 'underrated' tracks than Spotify may produce more data, improving recommender scores and possibly affecting the website internal links architecture and its UX design.

The Chinese version of Spotify (in collaboration with Tencent Music) and renamed QQ music, offer better ways for artists to interact and grow their community, leveraging early access to certain songs, a blogging platform section, several categories of videos with karaoke implementation and a section to buy concert tickets.

This approach facilitates especially popular artists, where new songs get a privileged treatment, but also offer numerous showcasing opportunities for independent artists and sub-genres.

**This exercise involved imagining what each of a set stakeholders might think. If you were a data analyst at Spotify, how might you try to achieve more specific and grounded answers to these questions? If you were to conduct interviews or focus groups, who might you invite to participate? What kinds of questions might you ask them?**

Interviews might be conducted with a well-known pop musician, a little-known independent musician, a fan of the well-known musician and a fan of the little-known musician to understand how they will take a possible shift of Spotify towards a QQ music integration into Europe. For the fanbase of the two above mentioned groups, the questions will focus on how they will feel about having a bigger pool of artists to discover and a blogging feature and how this change will influence their app experience.

They for instance might try a QQ music beta in English (currently only available in Chinese) to provide a more comprehensive result.

For both artists, this shift might sound too forced, so it will be fundamental to understand how they will feel about it.

The Indie artist might be more likely and inclined to interact with the blogging platform, so the question will focus on their take on having such an active relationship with their community.

## **Part B**

**Suppose you wanted to improve Spotify's recommender system, and that you were committed to following the Design Justice Principles covered in the lecture (stated again below).**

**For each of the principles, describe in one or two sentences how you could incorporate this principle into a process for developing the design specification of the new system (i.e., its algorithm, features, interface, etc). If helpful, you may structure your response as a bulleted list or a table.**

### **Design Justice Principles**

- We use design to sustain, heal, and empower our communities, as well as to seek liberation from exploitative and oppressive systems.

To sustain communities, the recommender system will benefit from creating a platform of interaction, such as a blog, to empower community voices, allowing them to have an active debate and a platform to share their ideas regarding artists and music.

- We center the voices of those who are directly impacted by the outcomes of the design process.

To empower the voice of users, the recommender system needs to take into account user discussions, to enable a deeper understanding of a more inclusive users pool and their needs.

- We prioritize design's impact on the community over the intentions of the designer.

To prioritise community impact, recommender integration needs to take into account a more consistent understanding of sentiment analysis (NLP), allowing a deeper focus on the user journey and experience rather than optimise the design for advertising and/or data collection.

- We view change as emergent from an accountable, accessible, and collaborative process, rather than as a point at the end of a process.

The recommender system should leverage blogging integration to support communication during the user journey, making the music platform more accessible, dynamic and responsive to change.

- We see the role of the designer as a facilitator rather than an expert.

Recommender systems should be integrated to facilitate user navigation, without pushing it towards famous artists and respecting an unbiased user experience.

- We believe that everyone is an expert based on their own lived experience and that we all have unique and brilliant contributions to bring to a design process.

User knowledge and expertise should be taken into account in the recommender system architecture, for example, implementing surveys for constructive feedbacks and comment section.

- We share design knowledge and tools with our communities.

Recommender systems should take into account the need of artists and user to have a more accessible platform, to understand how they can use it to their advance.

- We work towards sustainable, community-led and -controlled outcomes.

Recommender systems should be taking into account the effect of bias outputs in the community, and try to prevent it from happening.

- We work towards non-exploitative solutions that reconnect us to the earth and each other.

Recommender systems should point to a non-toxic atmosphere, encouraging social activities, to favour user's participation and improving community interactions.

- Before seeking new design solutions, we look for what is already working at the community level. We honour and uplift traditional, indigenous, and local knowledge and practices.

Recommender systems should integrate the traditional way of experiencing music, advertising vinyl shops, concerts, and integrating the possibility for the user to record and share live performances. This operation will support and encourage social engagement, enabling everyone to participate in the dialogue (for example users can upload their content despite not meeting industry standards).