Using a program with a data driven algorithm to enhance appropriateness in group creativity idea evaluation

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Introduction

The fictional digital creativity support tool I envisioned would help music groups (bands and non-permanent groups of musicians) to be able to evaluate ideas right after idea generation without having to hurt feelings or getting into conflicts, using a downloadable PC program which's main driver would be a data driven algorithm. This algorithm would collect the bands' existing music, as well as data from concerts, ticket sales, streams, and overall attitude from audience, critiques, and experts towards their musical pieces. After collecting all this data, it would be able to give boundaries for ideas, while the musicians could only focus on originality, without having to fear from conflicts or judge from the others in this type of group. Important to outline that the program is designed the way that it helps bands with some already existing music more than the ones that have just started their career. Although it could also work in the case of freshly started bands, it would only work with limited capacity or efficiency, due to it being designed in this previously mentioned way. However, if the latter mentioned bands would still want to use it, they could enter bands that they try to be similar to, or they look up to, or are in the same genre or sub-genre.

This novel tool aims to be useful in the Evaluation phase of group idea generation, based on Mumford et al.'s (1991) Creative process model. With giving up focusing on originality – and leaving that to the group themselves to enter any ideas they might agree on (which could be as much as they want, it would not affect the working mechanism of the program), the fictional tool would be able to evaluate appropriateness combining data from existing, already executed ideas that were appreciated by the target group (let that be the larger public, or in our situation, the audience and other recipients of the bands that the musicians and bands try to reach).

The aim of this support tool would be appropriateness compared to originality. The reason is that most of the creativity support tools focus on either idea generating in general, or originality itself, and less on the evaluation process, that decides whether an idea can be implemented in the given situation. Although this process itself is not surprisingly the main stream of effect that creativity support tools aim to strengthen, it is not hard to imagine how important this phase is, in order to choose the right ideas that can actually make the wished effect, while scraping the ones that the group does not feel appropriate. Because scraping the ideas that below the surface are appropriate ones might lead to forgetting them at all, while presenting ones that does not lead anywhere or are not even appropriate.

The focus of this program, as previously described, would be bands and musicians that already have some experience, audience etc.. Thus, the tool supports Pro-c creativity, namely musicians, therefore artists that are not, or not yet on the Big-C level, but still are quite famous already in their social environmental circles.

Description Based on Literature

As Sawyer (2011;1) states, groups are more creative when they have already worked together for a while. This underlies why the fictional creativity support tool would be more useful to bands that have already got some experience working together than those that had just been formed. Sawyer (2011;1) also state that when innovation is required (such as writing a new song), the challenge of the group is to generate unexpected, unpredictable, and unplanned solutions. Knowing this, it is more understandable why originality of idea generation should stay in the hands of the group, while translating those ideas into appropriate solutions might be better if done by a third party, in the case of this novel tool: a program. Sawyer (2011;2) defines music as part of the performance creativity area. For which, as it has been mentioned, it is important to not only collect data online, but also to analyze how the bands' concerts work, which songs and which shows 'sell' best. As it can be seen in Runco et al. (2005), measuring appropriateness appropriately in a study also needs a measure to show how appropriate one's ideas are. In order to make this score as reliable as possible, this tool collects largely online data, but as a way to make it more efficient, data that cannot be found on the internet about the band can also be entered manually, even without organizing it into a document – which can spare time and effort for bands that might not have a team that is capable of something like that. As Runco et al. (2005) also describes, it might be harder to concentrate on giving both original and appropriate ideas. The tool aims to solve this problem by letting the bands only concentrate on coming up with original ideas, an even though it cannot ensure that the individuals of the bands will not keep some of the ideas for themselves, but with stepping into the evaluation phase, it could provide less judgement, therefore hopefully a broader amount of original ideas.

Visual Description

The tool would be an easy to download, yet online program for PCs and laptops. The interface would be simple, although of course at all times designed by the latest trends in order to give a user-focused experience. After clicking through the start page, and uploading the data the program might require (although it would have a search engine that collects the largest amount of data itself), mainly meaning offline data such as not web-based ticket sales, online not found concert videos etc., the users could start to type in all the ideas they might have had, let that be lyrics, themes, keys, notes or even files/demos, which all could be uploaded with a right click to the search field. After including all ideas,

the band have had, and just then (in order not to give results while some ideas have not been evaluated yet) the program would give every idea a so-called combined appropriateness match number, which would be shown in percentage, and consist of the three results the program got from the three data categories. By that, bands could see if an idea was all the way inappropriate (with low numbers in all categories), or was doing good in two categories, but e.g. it might not be appropriate for offline use. Easy to imagine that there are some songs that are just not compatible in a concert setting, while they still might be very much appreciated on streaming platforms. The program would give feedback on each idea, and give advice based on all of them, to see which of them it recommends using, and which of them strongly not. (See in Figure 1.) Of course, after one session, the band could start over the appropriateness check as many times as they would want (although it is highly unlikely that they would sort of 'overuse' the program, the user-experience would not get worse just because of the program, if it would, it could only be because of the low appropriateness of the ideas entered).

FICTIONAL CREATIVITY SUPPORT TOOL

A novel tool to help appropriateness-evaluation of experienced music bands

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Data analysis

Released music - lyrics, notes, themes etc.

Offline audience, ticket sales etc.

Online data - streaming, reach, interaction etc.

Appropriateness

Original ideas of a new musical piece

Idea 1

Appropriateness

Original ideas of a new musical piece

Idea 2 🔍

Appropriateness

Original ideas of a new musical piece

Idea 3 🔍

Appropriateness

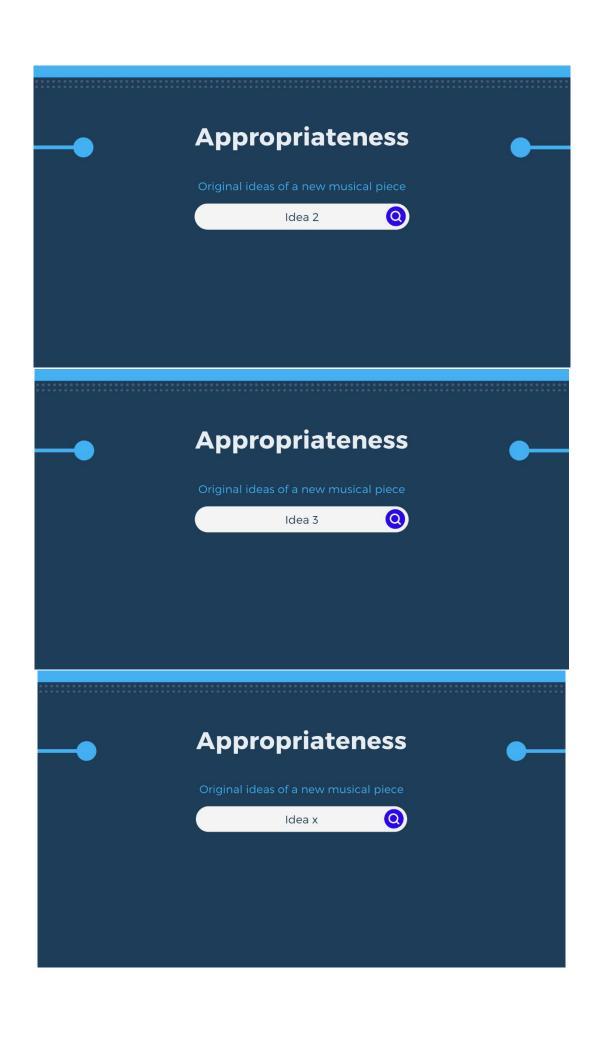Original ideas of a new musical piece

Idea x 🔍

Figure 1: Fictional Support Tool

Conclusion and Discussion

One of the main strengths this tool would have is that it enhances bands to focus on original ideas, and let them flow without any type of evaluation during that process and phase, while taking the appropriateness "check" into its own hands. Alone with that, it could enhance that bands get into a situation they have not been before. Mumford and McIntosh (2017) underlie this by stating that focusing on specific creative thinking processes would over all enhance creative thought. One of the intended consequences also state an unintended one, namely that the way of only getting a result after entering all the ideas the band have, results in different using methods than if they would get a result after every individual idea. This could also make bands with only certain types of creative process use the tool, which could result in not being profitable in the market. A weakness or limitation could

be that those with low digital literacy could find it hard to find the tool or use it. Although the intendedly user-friendly and easy-to-use interface would like to tackle that, also hoping that this tool is for a present or future where most of the musicians and bands use some kind of digital tool either to produce or to record parts of their music. Overall, for the bands using this tool it would be recommended to consider the steps of Mumford et al. (1991) when first trying or before downloading this tool, and if that is included in the description of the tool, it could help them understand what and how the tools could help their desire to create new musical pieces that reflects why their audience listens to them.

References

Mumford, M.D., Mobley, M.I., Reiter-Palmon, R., Uhlman, C.E., & Doares, L.M. (1991). Process analytic models of creative capacities. *Creativity Research Journal, 4*, 91–122.

Mumford, M. D., & McIntosh, T. (2017). Creative Thinking Processes: The Past and the Future. *Journal of Creative Behavior*, *51*(4), 317–322. https://doi.org/10.1002/jocb.197

Runco, M. A., Illies, J. J., & Eisenman, A. (2005). Creativity, Originality, and Appropriateness: What do Explicit Instructions Tell Us About Their Relationships? *Journal of Creative Behavior*, *39*(2), 137–148. https://doi.org/10.1002/j.2162-6057.2005.tb01255.x

Sawyer, R.K. (2011). Group creativity. In *Sawyer, R.K. Explaining creativity: The science of human innovation,* 231-248, Oxford University Press.

Sawyer, R.K. (2011). Defining creativity through assessment. In *Sawyer, R.K. Explaining creativity: The science of human innovation,* 37-51, Oxford University Press.