



Selected Papers of #AoIR2020:  
The 21<sup>st</sup> Annual Conference of the  
Association of Internet Researchers  
Virtual Event / 27-31 October 2020

## DATA, CAMERA, ACTION: HOW ALGORITHMS ARE SHAKING UP EUROPEAN SCREEN PRODUCTION

Nina Vindum Rasmussen  
King's College London

Algorithms and data analytics are making deeper inroads into screen production in Europe. Tech companies like Largo in Switzerland and ScriptBook in Belgium promise to aid the decision-making process with data science, AI, and machine learning. For instance, ScriptBook offers script analysis and automated story generation, which the company sees as co-authorship between humans and machines (ScriptBook 2018). At the same time, data-driven US companies like Netflix and Amazon are ramping up local-language content and opening production hubs in Europe. Their big appetite for original content puts pressure on some local players, not least the traditionally dominant national broadcasters. This trend has been accelerating in the wake of the Covid-19 pandemic: As audiences are confined to their living rooms, film and TV viewing online is shooting through the roof (Hazelton 2020). Streaming services are left with stockpiles of behavioural data as a result. With all this information at their fingertips, they can target individual subscribers on the basis of their viewing habits. They can also feed this knowledge back into the development of future projects. Kal Raustiala and Christopher Jon Sprigman (2019) suggest that we are entering a world of 'data-driven creativity' (Raustiala & Sprigman 2019: 51). This paper investigates what that entails in the development and pre-production stages of film and TV production.

I zoom in on the experiences of screenwriters, directors, and producers based in Europe and ask: How does the use of audience data and algorithms affect their creative labour? To answer this, I draw on concepts and methods from media industry studies, production studies, critical algorithm studies, and critical data studies. This research project contributes to scholarship in all these fields by shedding light on screen production in what Ted Striphas (2015) calls 'algorithmic culture'. The project builds on existing scholarship investigating the use of data and algorithms in other creative industries, especially music (e.g. Birtchnell 2018; Eriksson et al. 2019). This paper also adds to larger discussions of the increased datafication of cultural production. The term 'datafication' was introduced by Viktor Mayer-Schönberger and Kenneth Cukier in 2013

Suggested Citation (APA): Rasmussen, N. V. (2020, October). *Data, Camera, Action: How Algorithms Are Shaking up European Screen Production*. Paper presented at AoIR 2020: The 21<sup>th</sup> Annual Conference of the Association of Internet Researchers. Virtual Event: AoIR. Retrieved from <http://spir.aoir.org>.

to describe the process of putting something 'in quantified form so that it can be tabulated and analyzed' (Mayer-Schönberger & Cukier 2013: 78). My research explores how datafied screen production is experienced by the people who create the content that reach our screens.

### **Impact on creative labour**

The findings are based on empirical work currently undertaken online and offline in several European countries. More specifically, I examine data from three registers: (1) semi-structured interviews with film and TV creatives, (2) ethnographic field observation of industry events, and (3) industry trade publications, which provide insights into what John T. Caldwell (2008) calls an 'industry's own self-representation, self-critique, and self-reflexion' (Caldwell 2008: 5). I will use thematic analysis – as described by Braun and Clarke (2006) – to identify, analyse, and report patterns across these qualitative data sets.

Since I am still in the field, it is too soon to draw any definite conclusions. However, patterns and themes are already emerging in the data I have gathered so far. According to Taina Bucher (2018), 'personal algorithm stories' reveal how people imagine and understand algorithms, and how they negotiate and resist them in their everyday life (Bucher 2018: 17). My interviewees have encountered audience data and/or algorithmic tools in one way or another – either by using these technologies and insights themselves or by collaborating with a streaming service. As part of the interview process, I ask the film and TV professionals to draw their creative process. As Sophie Woodward (2020) explains, getting participants to engage with materials in this manner 'can tap into ways of knowing that are more attuned to material, embodied and multi-sensory ways of being in the world' (Woodward 2020: 55). Based on their drawings and statements, it is becoming clear that my interviewees believe working in a data-driven environment has an impact on their labour conditions.

When I ask screenwriters, directors, and producers about the specific data or metrics they receive from streaming services or other commissioners, they emphasise that these insights hide in the background. Yet the use of data and algorithms does appear to have indirect implications. One example is the tight timelines on a Netflix production: When you collaborate with a company like Netflix, you have to move much faster than when you work with a broadcaster. The swift pace has tangible consequences for the film and TV creatives, both in terms of their personal lives and how they perceive the quality of their creative output. For some, the time pressure is a significant drawback of striking a deal with Netflix. As one producer says, the tight deadlines might result from the streaming giant's way of working with data. Netflix cannot predict audience preferences three years into the future. They have to cater to taste communities here and now.

Observations like these reflect the different levels I address in my research, i.e. both the macro-level (changing industry structures) and micro-level (creative practices of screenwriters, directors, and producers). By adopting different methods and data triangulation, this study provides an empirically based understanding of screen production in an algorithmic culture.

## References

- Birtchnell, T. (2018). 'Listening Without Ears: Artificial Intelligence in Audio Mastering'. *Big Data & Society*, 1-16. <https://doi.org/10.1177/2053951718808553>
- Braun, V. & Clarke, V. (2006). 'Using Thematic Analysis in Psychology'. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Bucher, T. (2018). *If...Then: Algorithmic Power and Politics*. New York, NY: Oxford University Press.
- Caldwell, J. T. (2008). *Production Culture: Industrial Reflexivity and Critical Practice in Film and Television*. Durham/London: Duke University Press.
- Eriksson, M., Fleischer, R., Johansson, A., Snickars, P. & Vonderau, P. (2019). *Spotify Teardown: Inside the Black Box of Streaming Music*. Cambridge, MA: The MIT Press.
- Hazelton, J. (2020). 'Netflix Smashes Forecasts, Adds 15.8m Global Subs in Q1 Amid Coronavirus Lockdown'. *ScreenDaily*, 21 April 2020. Retrieved from <https://www.screendaily.com/news/netflix-smashes-forecasts-adds-158m-global-subs-in-q1-amid-coronavirus-lockdown/5149226.article>. Last accessed 1 September 2020.
- Mayer-Schönberger, V. & Cukier, K. (2013). *Big Data: A Revolution That Will Transform How We Live, Work and Think*. London: John Murray.
- Raustiala, K. & Sprigman, C. J. (2019). 'The Second Digital Disruption: Streaming & the Dawn of Data-Driven Creativity'. *New York University Law Review*, 94(1555), 1-66. <https://dx.doi.org/10.2139/ssrn.3226566>
- ScriptBook (2018). 'Man and Machine: AI as (Co)-Creator in Storytelling'. 5 November. Retrieved from <https://blog.scriptbook.io/man-and-machine-ai-as-co-creator-in-storytelling-537e5995ea88>. Last accessed 1 September 2020.
- Striphas, T. (2015). 'Algorithmic Culture'. *European Journal of Cultural Studies*, 18(4-5), 395-412.
- Woodward, S. (2020). *Material Methods: Researching and Thinking with Things*. London: SAGE.