

# Teachers' Motivation for Teaching AI in K-12 settings

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## ABSTRACT

There is a growing consensus that both teachers and students have to understand AI and be able to appraise the trustworthiness of AI technologies used in classrooms. This could be achieved, to some extent, through the promotion of AI literacy in K-12. This poster describes a qualitative study investigating teachers' motivation to teach AI in K-12 settings. Eight teachers were interviewed about their experiences and knowledge of AI. Using the lens of self-determination theory (SDT), we reveal variations in teachers' motivation to teach AI in K-12.

## CCS CONCEPTS

• **Social and professional topics** → **K-12 education**.

## KEYWORDS

artificial intelligence, K-12 education, motivation, self-determination theory, human centered AI

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## 1 MOTIVATION

Research (e.g., [2]) have been conducted to explore teachers' perspectives of AI. However, teachers' motivation to teach AI has not yet been the focus [3]. Understanding teachers' motivation can give insight into teachers' attitudes towards adopting AI into the curriculum. This study addresses the gap in research by employing qualitative methods to explore teachers' motivation to teach AI concepts in K-12 settings.

## 2 METHOD AND FINDINGS

To answer our research question "What are computing teachers' motivation to teach AI in England?", we draw on self-determination theory (SDT) by Ryan and Deci to develop a semi-structured interview schedule to explore motivation. According to SDT, people function optimally when their psychological needs: autonomy, competence, relatedness are sufficiently met. The data for this study came from a 30-45 minute individual online interview with 8 secondary teachers in England. We employed reflexive thematic analysis (RTA) [1] to analyse the interview data. Table 1 shows four

themes developed and some example quotes from teachers interviewed.

**Table 1: Themes developed from interview data**

Theme	Example Quote
1. Intrinsic drive	"Everything I've done is self-taught."
2. Extrinsic drive	"it's here to stay. It's not a trend. It's not a phase ..."
3. Support community	"for me it's really important ..."
4. Teacher-monitored AI technologies	"kill that internet, ... write your answer, switch on the internet again"

Our findings show that teachers within our sample are partly intrinsically motivated to teach AI in schools. This might be as a result of teachers' autonomy to create teaching resources, teachers' interest to increase their AI competence through self-initiated learning and the existence of teacher support communities to promote relatedness. Also, teachers report that current AI tools such as ChatGPT do not support teacher autonomy: they find it challenging monitoring how students use it to complete assignments [5].

## 3 CONCLUSIONS AND NEXT STEPS

This study used qualitative methods to explore computing teachers' motivation to teach AI in England's K-12 settings. We found that our participants were partly intrinsically motivated to teach AI in school. Drawing on SDT, we believe that supporting teachers' autonomy and competence through the creation of teacher-monitored AI tools in schools, professional development and revamping teachers' support communities post-covid could increase teachers' intrinsic motivation. Future work could extend this investigation of teachers' motivation to teach AI in school with more teachers and quantitative analysis.

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