

(Time allowed: 100 Minutes)

Instructions

1. Please complete the first draft of the position paper in response to the following topic:

Is it advisable for schools to adopt facial recognition technologies (FRT) on campus?

2. Specifically, you need to write a **three-paragraph draft**, following this structure:

1. **Introduction:** Set up the context and present your overall thesis.
2. **First Body Paragraph:** Structure it using the Toulmin model's three essential elements. It must contain:
 - A clear **claim**
 - **Evidence/data** from the provided excerpts (grounds)
 - An **elaboration/explanation** (warrant)
3. **Second Body Paragraph:** Focus exclusively on refuting an opposing viewpoint. It must contain:
 - A **counterargument**
 - A **response**
3. Make use of the given excerpts to provide the evidence supporting writing. Be sure to include **in-text citations** whenever necessary.

Note:

You should finish the writing within 100 minutes. There is no word limit in this task.

Supporting schools to use face recognition systems: a continuance intention perspective of elementary school parents in China

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Abstract

A great deal of attention has been focused on technological innovation, for example, face recognition, which has been used in some countries in various fields. Nonetheless, there has been little attention paid to parents' acceptance of the use of face recognition systems on campus. To address this gap in the literature, this study examined how different degrees of technological innovativeness¹ and dangerous beliefs in the virtual world (DBVW)² influence parents' perceived value³ of using and intention to continue supporting schools' use of face recognition systems. This study adopted snowball sampling⁴ to collect data through questionnaires, and received 380 valid responses from parents living in Xuzhou, China. Confirmatory factor analysis⁵ and structural equation modelling⁶ were used to analyse the data, with results indicating that: (1) DBVW was negatively related to perceived value; (2) technological innovativeness was positively related to perceived value; and (3) perceived value was positively related to continuance intention⁷ to use face recognition systems. The results suggest that parents support the use of face recognition systems in elementary schools; thus, such systems can be adopted by other elementary schools in other areas.

Discussion

Although implicit and explicit attitudes are different, they can both affect behaviours, and individuals' attitude can promote the value perception before performing a behaviour (Kaiser et al., 2021). In line with this, the present study explored parents' DBVW and technological innovativeness in the value perception of the use of face-recognition systems, and continuous intention to use such systems as a research framework. The results indicate that the average score of parents' DBVW is 3.865, which is higher than the average level (3.000), indicating that the parents were worried about the disclosure of students' personal privacy, and generally had a cautious attitude towards new technologies (Perry & Sibley, 2010). The average score of parents' technological innovativeness is 3.796, which is higher than the average level (3.000), indicating that the parent respondents⁸ tended to accept new technology (Wang & Lee, 2020). The average score of parents' perceived value is 3.919, which is much higher than the neutral level (3.000), indicating that the parents generally recognise the value of face recognition systems (Kim et al., 2007). The average score of CIU is 3.776, which is higher than the neutral level (3.000), indicating that the respondents generally preferred to continue using the face recognition system at the campus entrance. On the whole, although the parent respondents thought that the face recognition system had certain risks, they were willing to try technological innovation and they thought the system was valuable, so they intended to continue using it.

According to the results of the path analysis coefficient test, the DBVW was negatively correlated with perceived value, supporting H1 (DBVW is negatively related to perceived value), which is consistent with previous studies (Dhaggara et al., 2020). The results of this study indicate that there was a significant negative correlation between users' anxiety about face recognition technology and their perceived usefulness. When users could trust that they had information security on the Internet, they would have lower information leakage anxiety and higher use intention (Singh & Sinha, 2020). Therefore, this study suggests that the higher the parents' DBVW, the lower the value they perceived.

The results of the path analysis coefficient test revealed that technological innovativeness has a positive correlation with perceived value, supporting H2 (Technological innovativeness was positively related to perceived value). The results are consistent with previous studies (Albertsen et al., 2020; Lee, 2013), which proved that personal innovation had a positive relationship with perceived usefulness which accounts for the relationship between parents' technological innovativeness and perceived value in this research. This study found that the higher the technological innovativeness, the higher the perceived value.

The results of the path analysis coefficient test revealed that perceived value has a positive correlation with continuance use intention, supporting H3 (Perceived value is positively related to continuance intention). The result is consistent with previous studies (Singh & Sinha, 2020; Wang et al., 2020) in which their results showed that accounting for higher perceived usefulness, there was a positive association between perceived usefulness and CIU (Singh & Sinha, 2020; Wang et al., 2020). Therefore, this study found that the higher the parents' perceived value, the higher their CIU.

Drawing on the attitude-value-behaviour model, implicit and explicit attitudes differ, but they can both affect behaviours through value perception (Serenko & Turel, 2019). To examine the indirect prediction of CIU by parents' DBVW and technological innovativeness, the results showed that DBVW can negatively predict CIU, but technological innovativeness can positively predict CIU, and both are mediated by value perception. As Kaiser and Lange (2021) suggested, explicit attitude influences behaviour by triggering behavioural responses, while implicit attitude operates through the habituation of behaviours (Serenko & Turel, 2019). On the other hand, those people with strong explicit attitudes have a greater tendency to perform behaviour as value increases (Kaiser et al., 2021). Thus, H4 was verified to understand how parents' DBVW and technological innovativeness significantly related to CIU mediated by value perception.

Glossary

	Vocabulary	Definition
1	Technological innovativeness	The degree to which an individual is willing to try new technologies.
2	Dangerous beliefs in the virtual world (DBVW)	Anxiety that individuals have about potential dangers while using technologies
3	Perceived value	Value that users believe a technology or service has for themselves
4	Snowball sampling	Gathering research participants where existing participants recruit future subjects from their friends
5	Confirmatory factor analysis	A statistical technique used to test if measurements of variables fit a certain expected structure or model
6	Structural equation modelling	A statistical method that models complex relationships among multiple variables
7	Continuance intention	The intention to keep using a particular technology
8	Respondents	People who answer questions in a survey or study

(End of Article A)

Facial recognition technology in schools: critical questions and concerns

Mark Andrejevic & Neil Selwyn

2020

Abstract

Facial recognition technology is now being introduced across various aspects of public life. This includes the burgeoning¹ integration of facial recognition and facial detection into compulsory² schooling to address issues such as campus security, automated registration and student emotion detection. So far, these technologies have largely been seen as routine additions to school systems with already extensive cultures of monitoring and surveillance³. While critical commentators are beginning to question the pedagogical⁴ limitations of facially driven⁵ learning, this article contends that school-based facial recognition presents a number of other social challenges and concerns that merit specific attention. This includes the likelihood of facial recognition technology altering the nature of schools and schooling along divisive⁶, authoritarian⁷ and oppressive lines. Against this background, the article considers whether or not a valid case can ever be made for allowing this form of technology in schools.

Discussion

Challenging the take-up of facial recognition in schools

These questions over diminished notions of pedagogy and consent⁸ are important. Yet, at this point, we would like to argue that there are a number of additional issues and concerns that cast further serious doubt upon the implementation of facial recognition technologies in schools. In brief, the following points of contention⁹ might be raised:

(i) The inescapable nature of school-based facial recognition

Another point of concern is the inescapability¹⁰ of facial monitoring within school contexts. Unlike other forms of personal data (i.e., any piece of data connected to an individual's name), facial data lends itself to constant and permanent surveillance. In short, people are always connected to their faces. Thus, unlike social media posts or interactions with school learning management systems, there is no option for students to self-curate and restrict what data they 'share'. While students might be able to opt-out¹¹ from facial detection elements of their school's learning systems (for example, the use of eye-tracking or facial thermal imaging for learning analytics), there is no right to decline to participate in 'non-cooperative' facial recognition systems (indeed, any opt-out effectively renders campus facial recognition systems ineffective). While such coercion¹² applies to the use of

facial recognition in all public spaces, it is especially acute in schools. For example, most schools enforce dress codes that preclude students' faces being covered by hair, hoods or other obtrusions¹³. This makes it difficult for students to obscure their faces from surveillance cameras. This also raises the inadequacy of any promise of 'informed consent¹⁴' regarding school facial recognition systems. The systems being deployed in schools for security and attendance purposes rely on complete sweeps of classrooms and corridors in order to operate. This renders 'opt-in¹⁵' and 'out-out' approaches counter-productive from the point of view of the system provider. Even if opt-out protocols¹⁶ are in place, the system has to scan a student's face before it can recognise that they have opted out.

(ii) The dehumanising nature of facially focused schooling

First is the argument that the statistical processes through which facial recognition technologies quantify and frame a student's face are inherently reductive. As noted earlier, facial recognition technologies work by assigning numerical values to schematic¹⁷ representations of facial features, and then making comparisons between those values. Antoine Bousquet (2018) characterises this as a 'linear perspective' based on the geometric/ mathematical conceptualisation of space. The mechanistic gaze of facial recognition, therefore, consists solely of the extraction and abstraction of a student's most personal features from what are essentially statistical images. As Bousquet (2019) continues, the majority of these images never pass in front of human eyes, but are subject to intensive algorithmic¹⁸ treatment and synchronised with similarly decontextualised statistical geospatial¹⁹ information. This constitutes a very reductive engagement with students in contrast to how they would ordinarily be viewed by a human. Students are not 'seen' by facial recognition technologies in a manner that is able to discern their full range of facial emotions – for example, someone who is utterly bereft²⁰ or someone who has a glimmer²¹ of recognition. Indeed, one of the likely practical consequences of facial recognition technologies is students having to contort their facial expressions in 'unnatural' ways that allow the technology to 'detect' and/or 'recognise' them. If the cold algorithmic gaze of the system is not triggered, then the onus is on the student to present a different (more 'readable') face. More cynical students looking to 'game the system' might perfect their ability to dimple their mouth and thereby be classified as 'learning'. While these adjustments might seem like minor inconveniences, it could be argued that this lack of full acknowledgement for what are amongst any individual's most personal attributes is inevitably dehumanising and distancing.

(iii) The future oppression of marginalised groups within schools

Finally, facial recognition techniques embody an ambition to control and standardise the actions and behaviours of students' lives—arguably one of the central premises upon which contemporary digital society is founded. From this perspective, the students who stand to be harmed most by facial recognition technologies in schools are those who do not fit neatly into standardised systems, and

those whose lives fall between the cracks of dataveillance²². In short, the concern remains that the ways in which data derived from facial recognition systems will be used in conjunction with other aspects of the datafied school does not advantage outliers or those whose lives do not fit neatly into discrete categories.

Referring back to our earlier observations over the foregrounding of race by facial recognition technology, it seems likely that this technology will be implicated in reproducing racialised class hierarchies within school contexts that have longstanding social and cultural reproduction processes (see Lewis and Diamond 2015). Another such obvious group is queer and trans students in what continue to be profoundly heteronormative²³ school contexts. This is illustrated in Os Keyes (2019, n.p) provocative argument that, ‘data science is a profound threat for queer²⁴ people’. Defining ‘queer’ primarily in terms of fluidity, autonomy, a distinct lack of definition and ‘the freedom to set one’s own path’, Keyes reasons that data-driven technologies such as facial recognition are fundamentally set in opposition to these qualities (grounded as data science is in norms, discrete categories, precise definitions and assumptions of predictable futures). Any gaps, omissions and blanks in non-binary and nonconforming students’ data profiles will invariably lead to diminished calculations and a limited range of diagnoses and decisions being made about them. Significant issues are likely to be ignored, or perhaps additional unwarranted assumptions made. Either way, the chances of these students being misrepresented are high.

Glossary

	Vocabulary	Definition
1	Burgeoning	Growing or increasing quickly
2	Compulsory	Required by law or rules
3	Surveillance	Careful watching for security
4	Pedagogical	Teaching methods
5	Facially driven	Controlled by facial features
6	Divisive	Causing disagreement or split
7	Authoritarian	Strict, controlling power
8	Consent	Permission or agreement
9	Contention	Disagreements or arguments
10	Inescapability	Impossible to avoid
11	Opt-out	Choosing not to participate
12	Coercion	Forcing by threat or pressure
13	Obtrusions	Things blocking view
14	Informed consent	Agreement with full knowledge
15	Opt-in	Choosing to participate
16	Protocols	Official rules or procedures
17	schematic	Simplified diagram or plan
18	algorithmic	Step-by-step problem-solving method
19	geospatial	Relating to Earth’s locations

20	bereft	Lacking something needed
21	glimmer	Tiny flash of light
22	dataveillance	Tracking personal data
23	heteronormative	Assuming straight relationships as standard
24	queer	Outside traditional gender/sexuality norms

(End of Article B)

Task: Evaluate the following two sample Academic Construction and Evaluation (ACE) drafts using the rubric provided on the following page.

Sample ACE (Draft) – Student A

Although facial recognition technology (FRT) is becoming more common in schools worldwide, this paper argues that it is not advisable for schools to adopt FRT on campus due to possible violation of students' privacy.

FRT intrudes on students' privacy since the "informed consent" is not observed (Andrejevic & Selwyn, 2020). For instance, the facial recognition systems in operation in schools scan all students' faces in classrooms and corridors to function regardless of whether or not a student has opted out (Andrejevic & Selwyn, 2020). In other words, even if students can choose to opt out, the system cannot avoid scanning everyone, making "opt-in" or "opt-out" options impractical. As a result, this violates the principle of "informed consent" because students are not allowed to choose not to participate (Andrejevic & Selwyn, 2020).

Some opponents claim that even if facial recognition systems scan all students by default, an "opt-out" mechanism still allows them to later remove their data or disable tracking, thereby preserving the principle of informed consent. However, while "opt-out" may allow data removal after scanning, the initial collection still violates privacy, as students have no rights to avoid being scanned in the first place. In fact, true consent requires the ability to refuse participation entirely, not just after the initial scanning.

(211 words)

Sample ACE (Draft) – Student B

Facial recognition technology has been adopted by many schools all over the world. However, some parents do not support the FRT in schools due to the privacy issue.

Parents think FRT harms their kids a lot. The results of a research study indicate that the average score of parents' dangerous beliefs in the virtual world (DBVW) is 3.865, which is higher than the average level (3.000), indicating that the parents were worried about the disclosure of students' personal privacy, and generally had a cautious attitude towards new technologies (Perry & Sibley, 2010). FRT violates students' privacy.

It is argued that FRT does not harm their kids because it monitors them 24/7, ensuring their safety in school. Although kids are monitored all the time, it can't guarantee their safety.

(128 words)

Rubric for Argument Construction and Evaluation

Critical Thinking & Use of Grounds (30%) (Quality of Rebuttal (Counterargument + Response) and Grounds)

A / A-	B+ / B / B-	C+ / C / C-	D or below
<ul style="list-style-type: none"> Response successfully addresses the counterargument Grounds are highly effective in supporting the claim 	<ul style="list-style-type: none"> Response addresses the counterargument Grounds are generally effective in supporting the claim 	<ul style="list-style-type: none"> Response attempts to address the counterargument Grounds are sometimes effective in supporting the claim 	<ul style="list-style-type: none"> Response does not address the counterargument or is not attempted Minimal grounds used

Argument Structure (30%) (Argumentation Model Adherence & Logical Interconnectedness of Components)

A / A-	B+ / B / B-	C+ / C / C-	D or below
<ul style="list-style-type: none"> All model components are appropriately applied All model components are logically connected 	<ul style="list-style-type: none"> 1–2 components are inappropriately applied 1-2 components are not fully connected (e.g., weak warrant in Toulmin) 	<ul style="list-style-type: none"> 3 or more components are inappropriately applied 2-3 or more components are not connected 	<ul style="list-style-type: none"> Missing multiple components Components presented, if any, are poorly or not connected

Academic Tone & Clarity (30%) (Tone, Flow, Precision)

A / A-	B+ / B / B-	C+ / C / C-	D or below
<ul style="list-style-type: none"> Formal tone with no informal language (e.g., contractions, colloquialisms, or conversational phrasing) Sentences are clear, logically structured, and free of ambiguity Smooth transitions between ideas with no awkward phrasing Provides a well-structured paper with a clear thesis statement in the introduction, and an effective topic sentence for each body paragraph 	<ul style="list-style-type: none"> Predominantly formal but may include some lapses (e.g., a contraction, slightly informal word choice) Sentences are generally logically structured Some transitions may be abrupt or mechanical Thesis statement is present but may be imprecise Topic sentences are clear but may not fully align with the thesis or lack development 	<ul style="list-style-type: none"> Frequent use of informal phrasing (e.g. conversational language, slang, or overuse of first-person pronouns) Ideas may be hard to follow as sentences lack logical connections Awkward or disjointed transitions are evident Thesis statement is vague or off-topic Topic sentences are weak or disconnected from the thesis 	<ul style="list-style-type: none"> Overly casual, inappropriate for academic writing (e.g. text-message style, excessive slang) Ideas are consistently unclear or confusing due to absence of logical structure Ideas are disjointed due to absence of transitions Thesis statement is missing or incoherent Topic sentences are absent or unrelated to the thesis

Citations & References (10%) (APA Referencing Style)

A / A-	B+ / B / B-	C+ / C / C-	D or below
<ul style="list-style-type: none">• Correct use of signal phrases and quotations• No missing or misplaced citations• All secondary citations, if any, are correctly cited• Fully follows the APA referencing style	<ul style="list-style-type: none">• May occasionally forget page numbers, or quotation marks for direct quotes• Most sources are correctly cited• Some secondary citations, if any, are correctly cited• Minor errors in APA referencing style (e.g., missing parentheses, incorrect punctuation)	<ul style="list-style-type: none">• No citations for direct quotations• Citations are missing in most cited sources• Secondary citations, if any, are missing or incorrectly cited• Frequent errors in APA referencing style (e.g., missing years, incorrect author order)	<ul style="list-style-type: none">• No citations for direct quotations• Citations are rarely seen or absent• Citations, if any, do not follow the APA referencing style or may be fabricated