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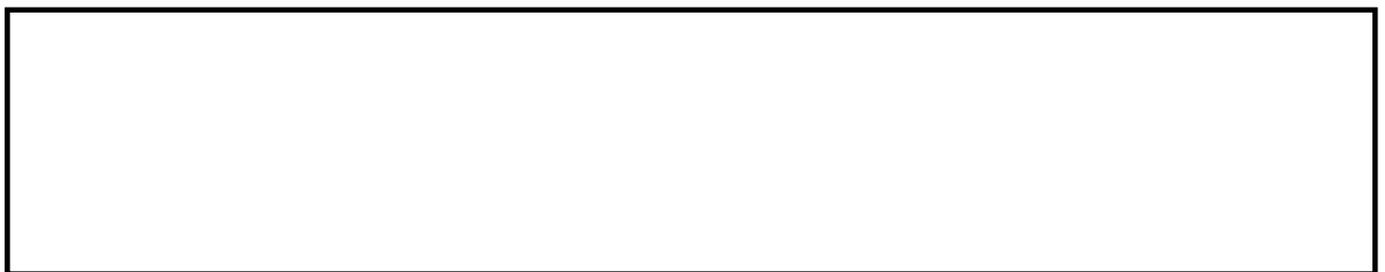
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THE RELATIONAL UX: CONSTRUCTING REPERTOIRES OF AUDIENCE AGENCY IN PIONEER JOURNALISM PRACTICE

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ABSTRACT

This article examines how "pioneer journalists" (Hepp & Loosen, 2021) in legacy newsrooms create preferred audience experiences through their UX practices in a networked media eco-system where journalism's epistemic authority is increasingly contested. Grounded in the encoding/decoding paradigm (Hall, 1973, 1980), this study combines semi-structured interviews with 12 journalism pioneers in London-based legacy newsrooms, with the in-depth analysis of the multimodal/interactivity features of two example stories. The findings suggest that audiences are interpellated through the the construction of repertoires of agency, grounded in empathy, for a closer, more immediate, and active involvement in the story. By creating 'relational UXs' that try to control the travel of meanings and the production of emotions, pioneers in legacy news organisations place a stronger emphasis on the relational negotiation of epistemic authority, a strategy to simultaneously embrace active audiences and sustain journalism's traditional raison d'etre – making sense of the world for the public.

Keywords: pioneer journalism ▪ innovation ▪ UX design ▪ encoding/decoding ▪ audience engagement ▪ epistemic authority

1. INTRODUCTION

As an institution that is in the business of meaning-making and knowledge production, journalism has historically occupied an authoritative position that allows it to persuade the public of its discourse of truthfulness and transform journalistic interpretation into a convincing picture of reality (Broersma, 2010; Ekström, 2002). Its performative power lies in its truth regime, which "remains its *raison d'etre*" – by constructing meaning, it claims to represent "a reality the public can act upon" (ibid., p. 1). Eldridge and Bødker (2019) stress that journalism is a distinct form of knowledge in that it is public and shared – it is through the circulation of its ever-growing range of products that it comes about, addresses and interpellates the audience, and

performs its societal function. For news to be knowledge, it "makes an implied epistemic claim as to its veracity, supported by the institutionalized nature of its production" (Carlson, 2020, p. 231).

However, as publics get increasingly involved in actively co-constructing media messages through access to more, and more varied, types of information and different, often conflicting, representations of reality, journalism's performative power and with it, its "authority and status as a meaning-broker" (Matheson, 2000, p. 571) is arguably abating and its epistemic authority challenged (Broersma, 2013; Carlson, 2017; Ekström & Westlund, 2019). In an age when journalistic audiences are exposed to the fallacy behind journalism's claim to truth, aware that "news does not convey the truth but a truth" (Broersma, 2013, p. 43), news organisations are finding it harder to reclaim their performative power, and hence the authority that results from it. This epistemic crisis of journalism has led to demands for its reinvention (Broersma, 2013), not least by acknowledging that journalistic authority is not a fixed position to be taken for granted, but "a contingent relationship" between journalists and other actors and forces, in which journalists' right to be listened to needs to be constantly renegotiated and legitimized (Carlson, 2017, p. 182). In conditions of networked journalism and sociotechnical news production, some argue, this process should not be one-way, but relational: as Ananny (2018) points out, a free press should be "an infrastructure for both speaking and hearing – for individual and collective autonomy", with journalists seeing themselves as "the creators of listening environments" (p. 190).

One of the ways journalists have responded to the challenge has been through pioneering new, experimental storytelling formats, and increasingly prioritising UX (user experience) design practices – striving to construct and 'configure' an accurate image of their audiences in seeking to better understand and engage them (Appelgren, 2014; Borges-Rey, 2016). Because, ultimately, journalistic authority is contingent on whether the public accepts journalism's epistemic claims (Carlson, 2017), it becomes important to explore the production of meaning vis-à-vis audiences in journalistic UX design practices as efforts to protect and reclaim journalistic authority. How the notion of active audiences plays into the co-construction of meaning in journalism and how audiences are interpellated in a "post-industrial" media ecosystem defined by increasingly networked modes of production (Anderson et al., 2012; Castells, 2010) become important questions if we seek to shed light on the ways in which journalists understand, employ, and negotiate "relational authority" (Carlson, 2017).

This article examines the process of encoding, or meaning production, in pioneer journalism UX design practices in UK legacy newsrooms. "Pioneer journalism" here is understood as individuals working for the digital operations of legacy newsrooms who experiment with organizational forms, products, and structures, seeking to re-imagine journalism, and particularly its relation to audiences and the public (Hepp & Loosen, 2021). Taken as "models or imaginaries of new possibilities" (ibid., p. 5), these communities of practice could serve as an important empirical

point of departure to examine journalism's discursive re-imaginings and possible futures.

The central research question that this article seeks to answer is:

- **How is the audience interpellated in the pioneer journalism encoding process?**

This is broken down into the following sub-questions:

- *RQ1: How do pioneer journalists in legacy news organisations construct the image of their audience through the process of ideation?*
- *RQ2: What is the preferred audience experience and how does it manifest in journalism stories (artefacts)?*

2.   LITERATURE REVIEW

Since the turn of the century, journalism has been forced to seek ways to adapt to new channels, editorial cycles, and logics of media production. Reconnecting with the public in an era of sharply decreasing trust and rising cynicism (Brants, 2013) is considered one of the major challenges facing journalism as a social institution whose normative societal function is to build and connect communities (Broersma & Peters, 2013). In an increasingly participatory culture, the traditional dynamics of knowledge production have changed, with demands to narrow the distance between media producer and consumer (Hanusch & Banjac, 2019), as the reader now arguably takes on a more active role in the construction of meaning.

Fittingly, and reflecting industry concerns, journalism scholars over the last decade have been preoccupied with the need to "(re)-discover the audience" by studying the changing relationship between journalists and audiences in a networked media ecosystem (Loosen & Schmidt, 2012), which has driven the "audience turn" in Journalism Studies research (Groot Kormelink & Costera Meijer, 2017). Anderson et al. argue (2012) that 'post-industrial journalism' needs to prepare for a future in which audiences will be ever-more active participants in the process of co-producing meaning and reality. How journalists construct the image of, listen to, and connect with, their "imagined audience" (Nelson, 2021), therefore, becomes central to their legitimacy and performative power.

These developments have led to the increased prominence of 'pioneering' practices such as UX design in journalism, which have resulted in new storytelling formats that put the audience at the centre of the user experience (Anderson & Borges-Rey, 2019; Appelgren, 2017; Borges-Rey, 2016). The afforded audience agency goes beyond narrow technological conceptions of interactivity, as suggested by Anderson & Borges-Rey (2019) which requires further investigation of the different dimensions of the encoded user experience (UX).

2.1.   Encoding/Decoding and the role of 'active audiences'

The notion of 'active audiences' is not new; it emerged at the height of mass media and mass communications and was a central concept in the tradition of British Cultural Studies, particularly in the work of the Birmingham Centre for Contemporary Cultural Studies in the 1970s. Hall's Encoding/Decoding theory (1973, 1980) conceptualised the 'audience' as active participants in the communicative process by adopting different cognitive 'reading' positions of media texts. The encoding/decoding paradigm views encoding as the product of the articulation of discursive, social and material forces, whereby media production involves "constructing the message and packaging it into meaningful discourse" (Hall, 1980), informed by socio-material conditions, frameworks of knowledge, professional codes, and assumptions about the audience. Meaning is produced in the dialogic process between encoder and decoder, based on shared language conventions. Therefore, there has long been an acknowledgement that meaning production is a contingent, relational process which is the product of 'articulation' of two distinct yet 'determinate' moments – encoding and decoding, each of which has its "own specific modality, its own forms, and conditions of existence" (ibid., p. 128). Hall distinguishes between the denotative (literal) and connotative (associative) meanings of a sign, arguing that it is at the level of the latter that "the sign enters fully into the struggle over meanings" of culture, taking on "more active ideological dimensions" (1980, p. 133).

The 'active audience' notion is expressed in Hall's theory in the acknowledgement that readers can adopt different cognitive 'reading positions' when presented with media messages – accepting wholesale the encoded message as created by producers, negotiating its meaning (accepting some elements while rejecting others), or altogether opposing it through rejection, misinterpretation or subversion. The sign-as-realised and the sign-as-experienced, therefore, may or may not overlap due to the inherently polysemic nature of the (linguistic) sign and the arbitrary nature of signification, as proposed by Saussure and widely acknowledged by linguists. But while these dominant readings are not closed, they are likewise, not completely open to random interpretation. Although decodings cannot necessarily be guaranteed or prescribed, the process of encoding is significant as it constructs 'preferred readings' which act as "maps of meaning" while also, at the connotative (deep) level of signification, serving as "maps of social reality" (ibid., p. 133).

2.2.   Encoding in the age of networked, interactive media

While developed in conditions of mass communication/mass culture, Hall's encoding/decoding model was prescient in that it conceptualises the meaning production/encoding and reception/decoding structures as an *open system* and the process of decoding as active reception even before the advent of digital media and the Internet. Hall's model was originally applied to the study of TV audiences (Hall, 1973, 1980;

Morley, 1974, 1980), and more recently, translated to the context of digital culture through studies of media resistance (Woodstock, 2016) and interactive media affordances (Shaw, 2017). But has it stood the test of time?

The proliferation of increasingly sophisticated technological affordances and networked media production has had a transformative impact on the process of journalistic meaning production, a process that is now more complex than in the past. Carlson (2020) identifies a range of shifts in journalism's circulation from one-to-many broadcasting structures to digital platforms, which have epistemic consequences for journalism – i.e., for its production of knowledge, its forms, and the public acceptance (or not) of its knowledge claims. These shifts include, for on the one hand, changes in the packaging of news, whereby the different contexts and forms in which they appear may alter the originally encoded meaning and journalists' use of interaction traces in increasingly prominent audience measurement measurement practices, on the other (Carlson, 2020, pp. 236-237). What has changed since Hall's encoding/decoding model, is that the public can now directly feed into the meaning of an encoded media message, now armed with the agency, however illusory it may be, to alter or augment that meaning in a highly mediatized environment. In this environment digital intermediaries wield increased amount of power as infrastructures of knowledge production, but also structures of governance with their own values and ideology (Couldry, 2020). Furthermore, digital media arguably blurs the distinction between the two interpretive communities – those of producers and consumers – which are now "drawn together by the circulation of news" (Eldridge & Bødker, 2019, p. 286) and are becoming increasingly enmeshed in the process of meaning production. This makes the circulation of journalism in the interactive digital media ecosystem a more complex process, in which technological mediation plays an equally important part in the process of signification as the linguistic and social dimensions of encoding and decoding (Bødker, 2016). It is therefore important to examine how the process of encoding is changing in this progressively interactive and networked media ecosystem.

2.3.   Crafting the UX through constructions of the "imagined audience"

While early newsroom conceptions of audiences saw them as passive recipients of news in a top-down process of communication (Gans, 1979; Schlesinger, 1978), there has long been an acknowledgement that audiences exercise some (however minimal) influence on editorial decisions. In the pre-digital, industrial period, audiences were constructed mainly through outsourced means such as marketing or audience measurement organisations (Ettema & Whitney, 1994; Napoli, 2010). With the advent of digital media, audience construction has evolved to an integral part of the newsroom activities, through in-house UX design and audience analytics. The audience features at the design stage of encoding, whereby producers strive to predict and configure the user journey through the ways they construct interactive stories

(Anderson & Borges-Rey, 2019). The "preferred" reading, or, if we are precise, the *preferred experience*, is created with the painstaking discursive construction of the audience "in the mind's eye" (Robinson, 2019). Serving up stories that would resonate most strongly and using audience engagement analytics to inform that practice, is therefore becoming a central part of journalism practice. The increased influence of the imagined audience on editorial practices is well documented, along with efforts to better understand audiences through the capture and analysis of user interaction data, which supposedly sheds light on how audiences interact with journalistic content (Anderson, 2011; Lamot & Paulussen, 2020; Zamith, 2018). Some scholars (e.g., Nelson, 2018; Steensen, Ferrer-Conill, & Peters, 2020) have questioned just how much this narrow "technical-behavioural" approach allows journalists to really know their audience, arguing that it instead reinforces old marketized, industrial conceptions of the audience. Acknowledging the relational nature of journalism production and being responsive to audience needs, on the other hand, are seen as a route to restoring the power and authority of journalism (Brants, 2013; Carlson, 2017; Lewis, 2020).

It is particularly interesting to explore this phenomenon in the context of legacy news organisations, whose organisational culture is "a gravitational force, anchoring organisations to their pasts" (Küng, 2017, p. 36), which sometimes holds back digital experimentation in legacy newsrooms. Examining how pioneer journalists who are situated in legacy newsrooms understand and enact the process of encoding vis-à-vis audiences would shed light on how these negotiations take place in an environment defined by a push-and-pull between tradition and innovation, legacy organisational culture, and new ways of working (Eldridge et al., 2019).

3.   METHODOLOGY

To examine how pioneer journalism producers think about their work in relation to their audiences and how that process of ideation manifests in the journalism story (artefact) as a preferred audience experience, I apply a multi-method design whereby in-depth interviews with 12 pioneer journalism producers are triangulated with the in-depth analysis of two artefact with divergent interactivity options. This allows me to see how UX design strategies, expressed in the interviews, lead to the material construction of different repertoires for the news audiences.

The interviews were carried out in March 2018 in six legacy London-based newsrooms considered to be at the forefront of digital innovation in journalism - the *Financial Times (FT)*, the *BBC*, the *Guardian, The Telegraph, The Times/Sunday Times*, and *Wall Street Journal EMEA*. Through a mix of purposive and snowball sampling, whereby I contacted individual digital journalism producers widely known as "pioneers" in the industry and asked them to nominate other interview participants, I ended up with a sample of 12 respondents of varying levels of seniority and a variety of roles – three Heads/Deputy Heads of Digital Journalism, three Digital/Interactive Editors, three Data Journalists, and three Senior Designers/Developers (Table

1: Interview participants[1]). The in-depth semi-structured interviews lasted between 60 and 120 minutes. The conversations revolved around the participants' digital journalism production practices, processes and products, with a focus on 1) how the audience features in their editorial and UX design decisions, 2) their conditions of production, and 3) how the respondents, as pioneers, navigate the legacy organisational culture. The interviews were transcribed, hand coded and analysed, using the method of thematic analysis (Braun & Clarke, 2006).

Table 1: List of interview respondents

Role	News organization
Head of Interactive News	*Financial Times*
Head of Digital Delivery	*Financial Times*
Senior Data Journalist	*BBC*
Data Journalist	*BBC*
Visuals Editor	*Guardian*
Head of Digital Journalism	*Telegraph*
Deputy Head of Digital	*The Times and Sunday Times*
Senior Newsroom Developer	*The Times and Sunday Times*
Data Journalist	*The Times and Sunday Times*
Interactives and New Formats Editor	*The Times and Sunday Times*
Executive Producer	*Wall Street Journal EMEA*
Head of Graphics	*Wall Street Journal EMEA*

The aim was to get a rich and nuanced picture of the participants' experience and shed light on what Hall (1980) refers to as journalists' "professional code". The "professional code" is a central feature of the encoding/decoding model which determines encoding by applying "criteria and transformational operations of its own, especially those of a technico-practical nature" (p. 136). While it is 'relatively autonomous', journalism's professional code is relegated to a sub-category of the "dominant-hegemonic code" in the encoding/decoding model (ibid.), suggesting that elite media ultimately reproduce power structures and reinforce the hegemonic order of the day. Therefore, exploring how audiences are interpellated in pioneer journalism practice would begin to shed light on the deeper, ideological dimensions of encoding in a networked, interactive media age, including how their professional code relates to dominant-hegemonic structures.

To explore the deep, ideological dimensions of pioneer encoding, the data that emerged from the interviews were triangulated through a mix of multimodal (Jancsary, Höllerer & Meyer, 2015) and interaction design analysis (Adami, 2015; Segel & Heer, 2010) of two digital journalism artefacts along three dimensions – 1)

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1   Many of the interview participants have since changed organisations, but largely work in similar roles.

denotation (surface structure, manifest content); 2) connotation (rhetorical, associative meaning, deep structure); 3) functionality (interactivity and afforded audience agency). I chose two innovative journalism stories mentioned by my informants for this artefact analysis. They represent the opposite ends of Segel and Heer's author-driven/reader-driven continuum (or explanatory/exploratory scale) (2010), offering different levels of interactivity and type of audience agency. *The Uber Game* (by the *Financial Times*) sits at the reader-driven, exploratory end of this continuum, offering a high level of user agency, whereas *Born Equal, Treated Unequally* (by *The Telegraph*) can be placed at the author-driven, explanatory end. Other studies (e.g., Anderson & Borges-Rey, 2019) have opted for analysing artefacts that sit halfway on the explanatory-exploratory axis, where the author-driven encoding approach is balanced out with optional interactivity, through a "dip/dive UX design" (p. 1267). In contrast, this article uses the maximum variation principle to analyse, and compare, two artefacts with completely different UX approaches – one more heavily prescribed by the authors, the other – requiring more active tactile participation.

The two artefacts are analysed using Jancsary et al.'s (2015) critical reconstruction multimodal discourse analysis approach, which helps explicate both the denotative and connotative functions of manifest content. This allows me to juxtapose them with observations from the interview data to unearth the communicative purpose as performative text and shed light on the authorial intent behind the design and production decisions (encoding). Through this analysis the textual artefact (the story) is seen as "material residue[s] of a sign-maker's interest" and a "window onto its maker" (Jewitt, 2017, p. 33).

I also draw on Adami (2015), who suggests that interactivity should be studied as both an aesthetic (syntagmatic) surface-level feature and a functionality, which helps explicate the afforded audience agency. The three analytical dimensions - denotation, connotation, and functionality - shed light on the preferred audience experience as constructed by pioneer journalism producers. When combined with insights from the interviews, which examine the producers' discursive positioning in relation to the audience, we get a fuller picture of how the imagined audience is interpellated through the construction of preferred audience experiences.

4.   RESULTS

4.1.   Pioneering encoding practices in legacy newsrooms: From hype to routine

My interview data analysis indicated an increasingly networked and collaborative approach to production, across teams or between different functions within a team. Constructing the audience experience in today's newsrooms involves multiple stakeholders – from marketing to web development teams – and is no longer solely the preserve of the editorial functions of a newsroom. Computational thinking and traditional journalistic mindsets increasingly converge in legacy newsrooms studied

here (see also Borges-Rey, 2016). This is reflected in journalism projects with multiple bylines as designers and developers contribute in their distinct ways to the process of encoding.

This cross-pollination of cultures and skillsets has enabled my participants to drive innovative practices of journalistic 'storytelling', in a concerted effort to reimagine what journalism can do, particularly in relation to their imagined audiences. There was a general acknowledgement that digital journalism needs to move beyond the simple presentation of traditional news formats, such as the inverted pyramid article, towards web-native formats that put the audience first – explaining and contextualising what is happening in the wider world or letting them discover how a story personally relates to them. I also observed a tendency of experimentation with the affordances of digital media, and a drive to 'templatise' experimental story designs, and to routinize experimental story production. At the same time, the interviewees acknowledged the inert nature of legacy newsroom culture, resistance to change and a conservative attitude towards new technologies (Boczkowski, 2004; Lowrey, 2011; Paulussen, 2016). My respondents, all of whom were members of designated digital/visual storytelling teams, had all had to negotiate organisational structure and (individual and/or collective) agency in their everyday operations, oscillating between a desire to create innovative products and the need to attend to everyday routinised production tasks – an intraorganizational tension also identified by Boyles (2016). Often, they had to carve out the space, time and resources to work on experimental projects alongside their day-to-day editorial support functions, not unlike digital startups within a newsroom, whose cultural influence in digital teams I found to be strong. Indeed, as Küng (2017) suggests, in their efforts to innovate pioneer producers in news organisations take a leaf out of the start-up playbook, with canonical concepts such as agility, the pivot, normalising change, sprint development, the application of 'design thinking', and the prioritisation of UX (user-experience) now central to how digital teams perceive and perform their function in the newsroom.

But instead of existing as isolated startups, or "intrapreneurial units" within the newsroom that clash with a more conservative legacy organisational culture (Boyles, 2016, p. 229), pioneer journalist teams and their practices are becoming a more integral part of the newsroom. A respondent from the Financial Times described the normative reconstruction happening in their newsroom as a slow process, but one that is moving in the direction of normalising web-native storytelling, where pioneer production moves from the hype that used to define it to routine:

> A lot of the efforts up until now have been about building that intellectual buy-in...but that fight has been won, everybody wants to do cool stuff, everybody wants to tell stories in a more digitally native format. How do we do that in practice in a news organisation that still needs to produce a newspaper every day, that still has some resource constraints - that is a very different question, and one that requires different skills. It doesn't require

evangelists, it requires managers, it requires people who think deeply about processes and workflows, not someone with an extremely unusual skillset who can execute some showpiece, which is I think where we were 5-10 years ago. (Interview, *Financial Times*)

4.2.   Ideation: How pioneer journalists construct the image of their audiences

When reflecting on the process of ideation in crafting preferred audience experiences, the interview participants' perspectives converged around three main themes, which can be considered different dimensions of pioneer journalists' ideation when it comes to UX design in legacy newsrooms: 1) *'audience first'*; 2) *beyond 'bells and whistles' design*; and 3) *personal, interpersonal, and social resonance*.

First, the *'audience first'* theme reflects the crucial role that audience considerations play in pioneer journalism production decisions. It finds its expression in the interview participants' increased investment of resources in UX design practices. This means, for example prototyping and usability testing, whereby they construct an image of their audience and try to steer the user experience whilst acknowledging that it is impossible for each individual decoding experience to be wholly predicted. My respondents tailor the affordances of technology to the specific story, rather than the other way round, and they often have to design "to the lowest common denominator to make sure everybody gets a consistently good experience" (Respondent at *The Times*).

Second, the respondents largely, and willingly, moved *beyond 'bells and whistles' design* as a means of audience engagement (i.e., towards a more meaningful application of interactivity, only when warranted) due to the resources it takes to create an interactive project, and the need to deliver content quickly and for multiple platforms. At the same time, there was an acknowledgment of the creative potential of the interactive affordances of digital media, which enable journalism producers to break the mould of routinised content production and deliver novel audience experiences, thus pushing the boundaries of what journalism can do. From the interviews, it became clear that there has been a pronounced move away from lavish uses of interactivity that defined longform interactive projects like *The New York Times'* Pulitzer-winning multimedia masterpiece *Snow Fall* and the *Guardian's Firestorm*. "Can we 'Snowfall' this?" (Dowling & Vogan, 2015), or designing large-scale, bells-and-whistles special projects, is no longer a preoccupation in newsrooms. Reflecting on what has changed since the publication of its acclaimed masterpiece *Firestorm*, a respondent at the *Guardian* explained:

> Back then [in 2012] we didn't publish on mobile, so we could do these big, beautiful print-like visualisations and now the small screen really impacts that; if you do things that people can hover over or you expect people to

interact with, you have to think, is my finger big enough to touch that thing? (Interview, *Guardian*)

A Data Journalist at the *BBC* I interviewed explained that scrolling, visual storytelling and image manipulation were the key trends in digital journalism production, moving away from pointing and clicking towards more plain, static, non-distracting, and immersive experiences. While not considered 'interactive' from a user perspective, however, these projects involve a lot of backend work – where this simplicity of representation is encoded in the interface by transitions, HTML manipulation, and lines of bespoke code. So, while it may not necessarily afford tactility as such, or user control, interactivity in newsrooms is achieved through a 'layering' of "code created with the intention of a visible output" on top of content management systems (Usher, 2016, p. 20). This reinforces Appelgren's observation that high level of explicit interactivity has now been replaced by "an illusion of interactivity" and a more author-driven approach offering only "limited possibilities for the audience to make choices" (2018, p. 316, 321).

Third, my respondents consistently talked about the need to *engage their audiences affectively*, and thus, perform their traditional public interest service by making every effort to *create stories that resonate* on an individual, interpersonal, and social level. They highlighted personal and social resonance, the evocation of empathy, and creating impact in the world. Interpellating audiences through personal resonance finds expression in the increasingly prominent 'find yourself in the story' format of the user experience, where users can enter personally relevant information such as their postcode for customised information. More than half of the interview participants stressed the need to generate empathy and emotional understanding when engaging audiences by involving them affectively and immersing them in the story. And a few interview participants emphasised their role as creators of impact and social resonance through their storytelling, which echoes journalism's traditional public service.

4.3. Artefact manifestation: Preferred audience experiences in pioneer journalism stories

I will now turn to the analysis of two example stories to explore the three emergent themes in more depth. By doing so, I seek to understand how the image of the audience manifests in the journalistic artefact, what the encoded *'preferred audience experience'* is, and what repertoires of agency are constructed for the audience in pioneer journalism practice. I will conduct a multimodal/interactive reading of the artefacts through denotation, connotation, and functionality, followed by respondent reflections.

4.3.1. Born Equal, Treated Unequally

Born Equal, Treated Unequally[2] is, as explained by my respondent at the *Telegraph*, an "experimental scroll experience" blending verbal and visual semiotic resources, strategically published on International Women's Day to coincide with the release of UK companies' gender pay gap figures published by the UK's Office for National Statistics in 2018. My respondent at the *Telegraph* explained that it is one of the pieces his team were most proud of, as it allowed them to use the affordances of interactivity creatively to tell an important story of social significance and generate emotional understanding by "making the issue come to life".

Figure 1

Denotation. Instead of presenting the data through complex visualisations (or the increasingly popular 'find yourself in the data' personalization), the *Telegraph* uses a clean and simple design, and guides the reader through the story to illustrate the extent of (lingering) gender inequality. At the start, readers are presented with the idea of gender balance – the screen is split into two equal parts – male, realised in teal and female, realised in purple (Figure 1). The standfirst clarifies: "On International Women's Day, we explore the gender pay gap". The choice of verb reflects the UX design approach, which is author driven (Segel & Heer, 2010) – i.e., the authors have explored the issue and are now explaining it to the readers. As the reader scrolls down, a data visualisation showing girls outperform boys in English and Maths slowly

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2   https://www.telegraph.co.uk/women/business/women-mean-business-interactive/

fills up the screen. A further scroll reveals that the percentage of young women who apply to university is higher than the male equivalent. Then a sharp turn in the narrative illustrates that despite all that, women are still severely underrepresented in political life, with only two female PMs in the history of the UK. Every scroll that follows reveals evidence that gender disparity exists in all walks of life – cultural heritage, recognition in art and science, business, and pay. Of the 33 Turner Prize[3] winners since 1984, for example, readers are told, only eight are women. The picture frame illustration tilts heavily in the direction of men as the reader scrolls, connoting the idea of significant imbalance (Figure 2).
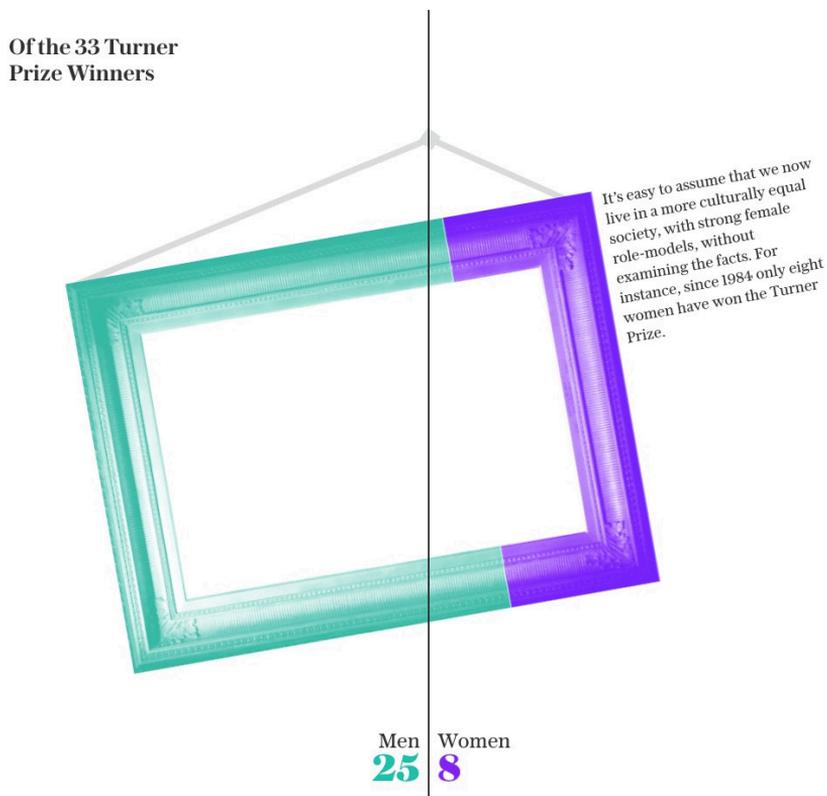

Of the 33 Turner Prize Winners

It's easy to assume that we now live in a more culturally equal society, with strong female role-models, without examining the facts. For instance, since 1984 only eight women have won the Turner Prize.

Men | Women
25 | 8

Figure 2

The piece is characterised by visual salience: the reader doesn't have to read the accompanying text to get the message. There is a congruence between the text and visuals. The text, kept to a minimum, serves an explanatory and contextualising purpose, reinforcing the visual narrative. Language is pithy and sentences are short, letting the visually displayed data tell the story.

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3   The Turner Prize is a visual art prize awarded annually in the UK.

Connotation. The heavy messaging and visual salience of the *Telegraph* example connote the discourse of impact, which is typical of a campaigning piece of journalism. Indeed, the short comment piece at the end reveals the launch of the Telegraph's Women Mean Business campaign, encouraging female entrepreneurship. My *Telegraph* respondent explained that the purpose of the campaign was to encourage more support from the government for female entrepreneurs. The *Telegraph* story employs the topos of ongoing interplay between balance and imbalance through visual metaphor. That tension is expressed through the illusion of balance between the visual and the verbal, and the two sides of the screen, created at the start, and the ever-growing imbalance between the two modes and the two halves of the screen – the male and the female, respectively, as the reader scrolls through. The simple, clean interface reflects the equally clear and simple message: women are not equal, whatever people may say or think; here are the facts and data, which speak for themselves. You don't need to read the text to get the idea of growing imbalance, clearly conveyed in the oppositional juxtaposition of visualisations which fill up the two sides of the screen one scroll at a time.

Functionality. The "author-driven" design approach is reflected in the lack of haptic interactivity, apart from scroll, through which an illusion of interactivity is achieved, with each scroll building on the story narrative. By minimizing audience agency, the *Telegraph* thus constructs a self-contained story space, guiding the reader through the story and enhancing their understanding of the wider social issue of gender inequality. While not physically interactive, the piece achieves its performative power through its seamless UX, where less tactility means a more author-controlled, immersive experience. The linear sequence lets the narrative unfold in an uninterrupted way, with scrolling used as a rhetorical strategy to achieve the effect of emotional slog. Its visual cadence, therefore, seeks to elicit an emotional response through cognitive, rather than haptic, immersion.

My respondent at *The Telegraph* explains the ideation behind this UX approach as follows:

> The challenge that I wanted to solve with this is, people say they're interested in that stuff but when you take them through stats, they just zone out and they go and read something more immediately grabbing, so how can we get really important stats in front of people but not lose them in 'death by graph'? And also, it's an emotive issue, so how can we bring out, make it feel much more alive than just showing the numbers or some graphs. So, we wanted to prompt reaction and we wanted the user experience to enhance that feeling of "Oh my God, I'm still going, it's never-ending, it's still unfair to women, it's insane." Because when you scroll, it makes you feel like you're slogging through something in a way. It's almost like a seesaw where you keep putting stuff on men's side…

4.3.2. The Uber Game

The Uber Game[4] is a multi-award-winning experimental news game produced by the *Financial Times (FT)*, which immerses players in a story world where they put themselves in the shoes of an Uber driver to see if they can earn enough in a week to pay their mortgage bill.
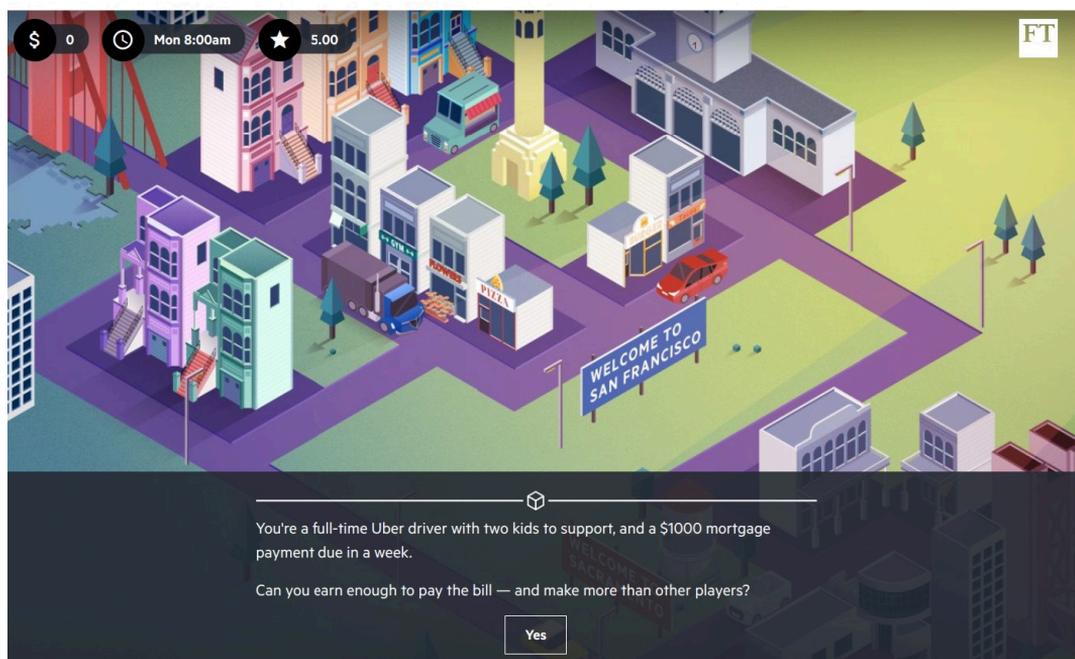

Figure 3

Denotation. My respondent at *FT*, who was behind creating the Uber Game, explained that the story world is based on a mathematical model built around data obtained through structured interviews with 30-40 Uber drivers. The gamified aesthetics of the piece, featuring an isometric illustration style, recreate everyday situations Uber drivers find themselves in (Figure 3), thus humanising their experience for the players. The laconic verbal prompts, based on anecdotal evidence from the interviews with Uber drivers, are crafted to convey the feeling of urgency and discomfort (and sometimes, even desperation). Direct speech is often used to recreate real-life conversations. The verbal prompts convey a feeling of hard slog and physical exhaustion, e.g., "You turn off the app for a bit and stretch your aching legs, but a wave of exhaustion hits you." It's an uncomfortable existence, which is communicated by the emotional cadence of the game, highlighting the pressures and sacrifices in the life of an Uber driver (Figure 4).

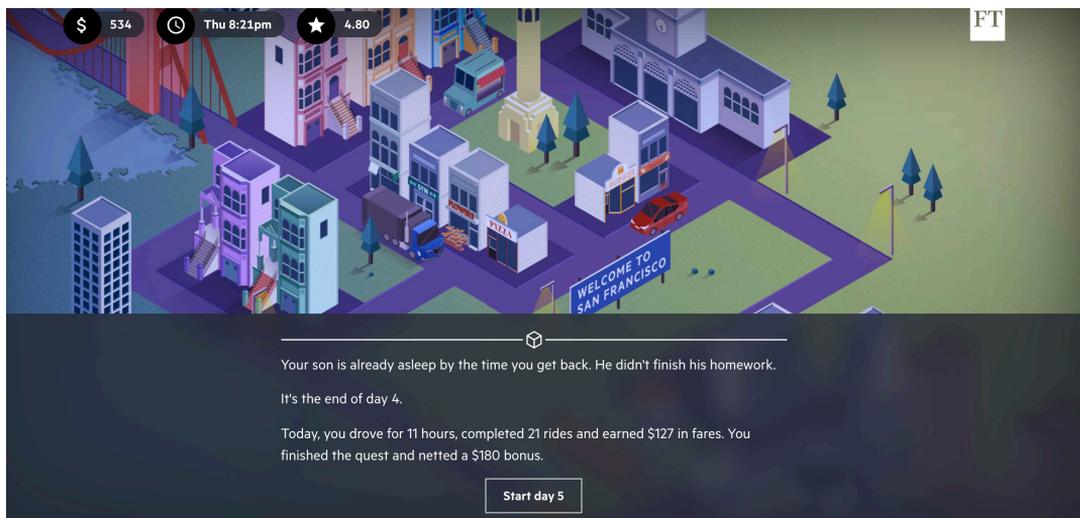---

4   https://ig.ft.com/uber-game/

Figure 4

Connotation. The discourse of discomfort is conveyed through a mix of visual, verbal, and interactional rhetorical strategies. These include full screen 'immersive' illustrations, lifelike visual and verbal descriptions, change of colour to separate earnings from minus costs, short yet powerful sentences, phrases denoting physical states of exhaustion or disappointment, and transitions between screens, such as daily recaps of your progress, allowing the narrative to slowly unveil as you play through. By crafting a relatable experience and humanising it, inviting players to discover the topic for themselves through play, the creators of the *Uber Game* seek to evoke empathy and emotional understanding. By choosing a topic of universal concern – the gig economy, they seek to create resonance more widely. On a connotative level, The *Uber Game* acts as a metonymy for what one of my *FT* respondents described as "the social transformation of the economy towards casualised working," with the stresses and strains of 24/7, always-on digital living, enabled by mobile apps such as Uber, mirrored through the lens of an Uber driver's experience.

Functionality. The *Uber Game* nudges players to actively participate in the story world, while enhancing their understanding of the everyday reality of Uber drivers and educating the readership about the gig economy. Thus, as they play through, they become co-creators of meaning. The immersive effect of the news game is achieved through the salience of illustrations - each illustration fills the screen, accompanied by short verbal instructions with interaction options. The narrative unfolds as players are prompted to move from screen to screen, the transitions between which take place as players click the button or select from two options. The game is characterised by a high level of haptic interactivity: it takes about 60 clicks to complete, suggesting a long process of playful discovery and active participation in meaning-creation by players, who get rewarded for their interactions by completing the game and seeing how they perform (Figure 5).
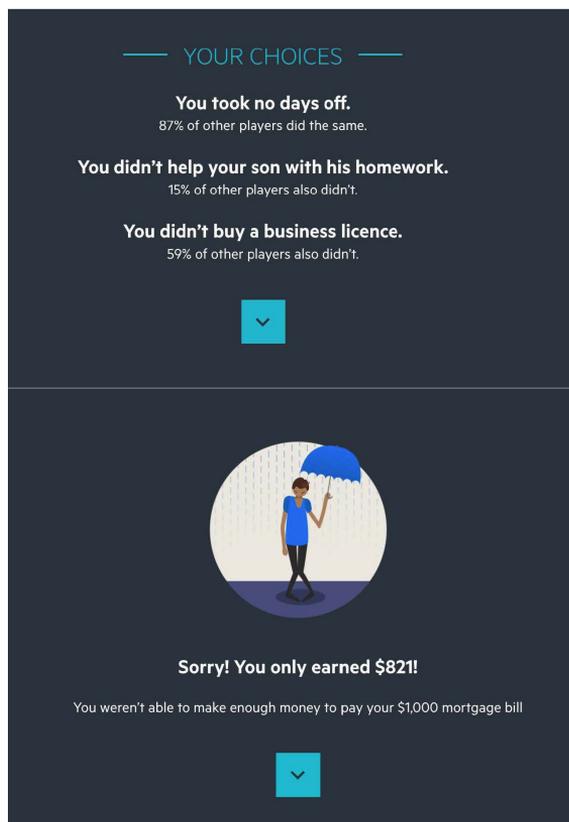
Figure 5

The creator of the *Uber Game*, whom I interviewed, explained the thinking behind the design approach as follows:

> The difference with the game [compared to a traditional informational piece] is that you can mould [the UX] a bit more because you know they [readers] have given you permission to design an experience for them; they've entered this 'world', so you… could craft it a little bit more… There's a bit in the scene where you get a crack in the windshield on the third day and if you don't do anything about it, something bad will happen. So, you can design the emotional tenor of the piece to get people through to the end… so it's basically storytelling.

5.   DISCUSSION: THE 'RELATIONAL UX'

Critical evaluation of both the interview and artefact data suggests that the *imagined audience* in these examples is interpellated through various discursive codes of relationality – personal relevance, empathy, and impact, thereby making personal,

interpersonal, and social resonance central to the process of encoding. This results in a 'relational UX', which includes the ways in which pioneer journalism producers imagine their audiences and position themselves in relation to them to (co-)produce meaning about the world. Within the preferred audience experiences are encoded various deep-level meanings (where audiences are interpellated through connotation) and types of functionality that construct repertoires of audience agency, as explicated in Table 2.

Table 2: Preferred audience experience in Born Equal (Telegraph) and The Uber Game (FT)

	Born Equal (Telegraph)	*Uber Game (FT)*
Denotation	Visual salience: play with colour and proportion	Visual salience: isometric illustration style
	Linear narrative flow	'You-try-it' UX
	Clean, simple desing	Gamified aesthethics
Connotation	Interplay between balance and imbalance	Discourse of urgency and discomfort
	Visual metaphor: male-female oppositional juxtaposition	Metonymy: Uber Game illustrating the gig economy
	Visual cadence: scrolling as emotional slog	Humanised experience and personification
Functionality (Agency)	Author-driven UX: seamless experience	Reader-driven UX: personal discovery
	Cognitive immersion	Tactile immersion in the story world through play
	Minimized agency	'Cliff-hanger' approach: plot twists that urge further play
	Reader guided through the story	Co-creating the narrative through active participation
	Illusion of interactivity - perception of dynamic flow	Click-reward: players get rewarded for interacting

This explorative study points to a mature view of digital interactive affordances, which also translates into a more selective use of interactivity, a more author-driven approach, and a simple, though still crafted, user experience. The desire to offer immersive, embodied experiences by symbolically positioning the user within the artefact could be driven by discursive constructions of the relationship between human and machine, in which the latter is seen as an "extension of the mind-body" and therefore interfaces try to mimic or recreate "the richer sensorium of human-to-human communication" (Dewdney & Ride, 2014, p. 260). It is a well-established view in the human-computer interaction literature that, as the technology evolves and diversifies, user experience design naturally follows a smoother, more intuitive approach in an effort to hide the layers of mediating technology for a more immediate connection with the user (Bolter & Grusin, 1999). Pioneer journalism producers strive to offer immersive, self-contained experiences, whose meaning the reader is invited to co-create. This takes place through painstaking design work that constructs certain repertoires of agency, grounded in emotionality and empathy. These

repertoires can vary from minimized tactile agency where the reader is guided through the story, unveiling the narrative as they scroll through, to gamified personal discovery that uses click-reward tactics, encouraging the player to immerse themselves in the story world and co-create the narrative through active – haptic and cognitive - participation. While the two stories analysed here offer divergent approaches to interactivity, what they share is the emotional interpellation of the audience through the construction of *relational user experience,* thus reinforcing the observation that emotionality in modern-day journalism is becoming a news value in its own right (Steinke & Belair-Gagnon, 2020; Wahl-Jorgensen, 2019). Both repertoires of agency explicated in this article - making choices as an Uber driver and scrolling, respectively, have a narrativising effect – i.e., the stories' coherence and therefore, overall message, depends on readers' (or players') active involvement in the story.

The study's findings, therefore, suggest that in their effort to reimagine journalism, pioneer producers in legacy organisations give considerable thought to active audiences and to offering different, novel ways for readers to interact with the journalistic story on a deep, emotional level. Thus, whether they take a more openly interactive or paternalistic user experience approach pioneer journalists create a complex relational dynamic between producer, audience, artefact and wider world, and construct a certain picture of reality, guiding the user through a preferred audience experience. This requires addressing the ideological dimension of the 'relational UX'.

On the one hand, the 'relational UX' could be interpreted as a commercial (and existential) strategy to sustain journalism's traditional gatekeeping function and its *raison d'etre* – a core professional claim that journalists still have the authority to make sense of the world for their audiences. Recognising that they operate in an audience activity-enhanced media ecosystem and embracing active audiences, pioneer journalists appear to double down on their resolve to be seen as the *de facto* authority when it comes to constructing reality. Legacy journalism's pioneer production can thus be seen as a rhetorical process that seeks to reclaim its epistemic power by creating relational UXs that try to control the travel of meanings and the production of emotions.

On the other hand, while tackling topics of inequality (as seen in the story artefacts analysed), pioneer journalism producers seemingly challenge existing hegemonic orders (e.g., of work and gender, as seen in the two artefacts analysed). This problematises the encoding/decoding model's already paradoxical provision that, despite their 'relatively autonomous' professional code, legacy news organisations reproduce dominant-hegemonic structures in their signification of events and phenomena (Hall, 1980). Is it possible that, by constructing relational user experiences and new repertoires of agency, pioneer journalists in legacy news organisations have begun challenging dominant power structures, rather than continued to reinforce them? In seeking to protect the right to be listened to, are pioneer journalists also

creating relational infrastructures in which speaking and listening between audiences and professionals are mutually enabling, which, as Ananny (2018) argues, are essential to a free and socially responsible networked journalism? And what are the wider institutional implications of this emergent type of relational encoding for legacy news organisations' cultural dynamics and their position within hegemonic structures?

These are all important questions to address if we are to understand the political currency and epistemic force of the 'relational UX', including how it is embedded in broader societal structures of power. That task would be incomplete without considering the decoding end of the meaning-production chain. Whether the reader/player accepts, negotiates, or rejects the encoded preferred audience experience, how they use the afforded agency repertoires, and what their place is in the relational dynamic created by pioneer journalism producers, deserves further scholarly attention. Theory-grounded critical "user reception studies" would offer significant benefits to academics and journalism practitioners alike, in our shared goal to better understand audiences and serve the public through meaningful research and practice.

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