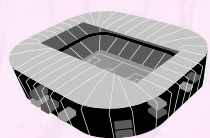




Exploring The Role of Technology for Accessible Stadium Experiences for People With Limited Mobility

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Abstract

Attending public sports events is a popular leisure activity that has yet to become more accessible for people with limited mobility. In our work, we address the role that technology and digital infrastructures play in the process of planning and travelling to football matches, and the experiences that disabled fans have at football stadia. Building on autoethnographic work on attending large public events with a disability [1], we report findings from semi-structured interviews with people with limited mobility (N=12). We apply Reflexive Thematic Analysis to craft four main themes, (1) showcasing the importance of familiarity with the processes, (2) illustrating the (in)voluntary separation of disabled and non-disabled people in current (ticketing) infrastructures, (3) highlighting social contacts as key contributor but dependency on other people also as obstruction of accessibility, and (4) contextualising the role of interactive seat plans within disabled people's lived experiences. Building upon these findings, we contribute an account on the experiences of people with limited mobility and the role of interactive seat plans, thereby appraising previous findings from autoethnography.

Research Questions

RQ1: How do people with limited mobility plan, carry out, and experience the attendance of football matches, and what role does technology play?

RQ2: What role does the interactive seat plan play in the ticket purchasing process, and how does it (fail to) address information needs of people with limited mobility?

Method

- Semi-structured interviews with 12 people who have different mobility disabilities (and who use wheelchairs, crutches, orthoses, or multiple aids)
- Participants already went to football games or wished to do so
- Thematic analysis, following Braun and Clarke's technique [1]



Themes

Theme 1: Familiarity greatly benefits accessible experiences but getting to this point is difficult

Theme 2: To include is to separate

Theme 3: Questioning dependencies on other people while respecting the importance of social contacts

Theme 4: Improved interactive seat plans need to account for context and individual requirements

Familiarity greatly benefits accessible experiences but getting to this point is difficult

Familiarity with the venue and the ticket purchasing process was a key factor when planning accessible stadia experiences, especially for home matches. Spectators develop routines to navigate barriers and avoid non-accessible environment. Also, being in contact with the disability liaison officer helped people receive unbureaucratic solutions, including tickets. In unfamiliar environments, such as away games, the lack of information on accessibility is a key factor that prevents disabled people from attending football matches.

To include is to separate

Current infrastructures to facilitate inclusion of disabled people in stadia strongly rely on separation in the built environment and within the ticket purchasing processes. Whether separation is appreciated depends on individual characteristics and preferences. Separating disabled fans from non-disabled fans in the built environment demonstrates both advantages and disadvantages. Human contact to staff and the corresponding support for specific requirements was mentioned very positively. However, separation in the ticketing infrastructure was appraised negatively. For instance, separate stadium infrastructure and seating arrangements had implications for participants' choice of mobility aids when attending a football match. Even though several participants in our sample could use crutches, adapting to the current infrastructures, they often (involuntarily) chose a wheelchair for going to the stadium.

Questioning dependencies on other people while respecting the importance of social contacts

Social contacts are inherent to positive experiences at football matches, and can contribute to the provision of accessibility. However, certain social relations rather introduce dependency where agency could be possible. On-site support and companions were valued greatly, but the human-in-the-loop system in many areas also reduced agency, for instance, due to depending on ticketing hotlines that, e.g., do not allow for spontaneous purchases of tickets.

Improved interactive seat plans need to account for context and individual requirements

Our results highlight the importance of accessibility information and its integration into interactive seat plans. However, appraising the prospective use of these representations also within the whole spectator journey needs to consider the lived realities, including additional (individual) requirements that may be addressed differently. We will focus on this in the discussion.

Discussion

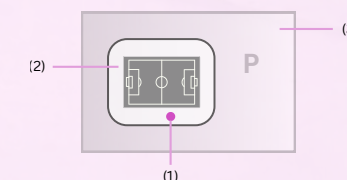
Considerations for Technology for Equitable Access to Stadia

- Becoming familiar with the infrastructure requires spectators to pass the initial threshold to get establish routines and gather knowledge. Technology could lower this threshold.
 - Providing **more accessibility information** that replace complicated and exhausting on-site experiences, e.g., through virtual exploration
 - **Careful implementation of AI** instead of real social relationships
- Current infrastructures separate disabled and non-disabled people, often enforcing segregation despite a wish for more inclusion and promote their social ties.
 - Providing **more context information to self-assess barriers** instead of being put into generic categories of disability or only being considered as special cases
 - Also **include disabled people in the standard ticketing infrastructure** to allow spontaneous purchases and easier inclusion of the companion(s)

The Role of Interactive Seat Plans

Overall, interactive seat plans can be central to various accessibility matters within the ticketing and on-site processes. Therefore, they primarily need to provide more detailed accessibility information. They should be available throughout the entire spectator journey for preparation. Additionally, their use cases can be extended, for instance, by integrating them into a larger representation of the built environment. The following list provides possible extensions of the representations which were distilled from the interviews.

- (1) **Seat and narrow environment:** Legroom, mobility aid storage, companion seating, seating with(out) away/home fans, standing up requiring regularly, foldable seats, rain protection, ...
- (2) **Broader environment:** (accessible) restrooms, lifts, info points, section entrance(s), info about stairs and banisters, catering and waiter service, ...
- (3) **Outside environment:** (accessible) parking, bus/train stops, road closures und diversions, ...



References:

- [1] Lukas Strobel, Kathrin Gerling, and Jan Ole Rixen. 2025. "Is This Seat Accessible for Me?": An Autoethnography of a Person With a Mobility Disability Using Interactive Seat Plans for Public Events. In Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI '25). Association for Computing Machinery, New York, NY, USA, 1-15. <https://doi.org/10.1145/3706598.3713414>
- [2] Virginia Braun and Victoria Clarke. 2019. Reflecting on Reflexive Thematic Analysis. Qualitative Research in Sport, Exercise and Health 11, 4 (Aug. 2019), <https://doi.org/10.1080/2159676X.2019.1628806>