User Experience Research: Point of View Playbook

A perspective based on data, evidence, and insights.

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ABSTRACT

User Experience Research (UXR) needs to offer clear recommendations based on the meaning of data, evidence, and insights. However, UXR lacks a method to help the practitioners form a compelling perspective that drives impact through evidence-based resources. The paper presents a UXR Point of View (PoV) playbook that provides a set of criteria, standards, and tools to guide multidisciplinary teams in designing services. A playbook typically consists of a book of plays or a set of instructions and has been used by practitioners from multiple disciplines. The paper presents the anatomy of a POV playbook with examples, challenges in industry, and the correlation of the PoV to the theories of situational awareness and decision making. The UXR PoV Playbook presents the results of a structured workshop with UX practitioners. The existing playbooks are used to inspire the POV Workshop and a model for defining the UXR Playbook.

CCS CONCEPTS

• **Human-centered computing**; • **Human computer interaction (HCI)**; • **HCI theory, concepts and models**;

KEYWORDS

User Experience Research, Points of View, Playbook, Insight Generation

1 INTRODUCTION

The UXR industry is on a steady growth trajectory with increased expectations for practice maturity [1]. Challenges include evolving tech, data privacy, interdisciplinary collaboration, return on investment, bias, and research balance. To tackle these challenges, the industry must focus on education, better tools, and advocating for the value of user research. Researchers must also develop a meaningful perspective on data for informed decision-making. UX researchers face data overload, synthesis, stakeholder alignment,

communication, time constraints, ethics, context adaptation, and cross-functional collaboration.

A User Experience Research Point of View (UXR PoV) is a perspective based on data, evidence and insights. Dogan and Giff [2] critically discusses the future of User Experience (UX) research across the tech industry and hence the shift from classic usability research towards design-led approaches, quantitative research discipline, A/B testing and telemetry. Such literature [2],[3] touches on the identity crisis and democratization of UX research, the evolution and sustainability of the UX discipline, and fusion of UX across heterogeneous fields. The adaptations to this shift are discussed from the perspective of practitioners. However, UX research lacks a method to help UX researchers and practitioners to form a compelling PoV that drives impact through evidence-based resources, including best practices. Buhle [3] in his paper "the best of times for UX research, the worst of times for usability research?" argues that we have an obligation to continue to evolve the field of UX and to use its insights to make our world more usable and need to push for an evidence-based field to help the industry.

Expanding on Buhle's perspective, the UXR discipline plays an important role in many organisations as it is able to conduct research and uncover data/insights that can directly impact strategic and tactical product decisions. In this context, the principal role of a UX Researcher is to represent the customer's requirements and needs, acting as a translator between the product development team and the customer. Power [4] in a paper based on Freeman's Stakeholder Theory [5], identifies UX, and UX Research in particular as a key stakeholder within software development teams creating products that have a significant user experience element. Despite the important role that UX Researchers play, to be effective, researchers must negotiate with multiple cross-functional (XFN) stakeholders to "resolve tensions and trade-offs between customer desires, user needs, user experience requirements, and technology constraints". This demands an ability in UXRs to clearly represent the core user requirements while balancing this with an appreciation of technical constraints and business needs. Without a clear representation or POV, the UXR risk data and insights being interpreted in unintended ways, and ultimately the wrong context applied, and conclusions made, based on the biases of XFN stakeholders.

This case study paper aims to build a UXR PoV playbook that provides a set of criteria, standards, tools to guide a multi-disciplinary team on designing service with real users in mind. This will help UX researchers and practitioners form a compelling PoV that drives impact.

The structure of this case study paper is as follows: (1) the current introduction section emphasising what we mean by a UXR PoV; (2) a literature review that includes subsections on the anatomy of a point of view, examples of playbooks, challenges in industry, and

correlation of the PoV to the theories of situational awareness and decision making; (3) the method for building a UXR POV, hence the playbook; (4) the results of the workshop and the playbook itself, (5) conclusions including limitations, routes to exploitation and validation.

2 PLAYBOOKS, POINTS OF VIEW CHALLENGES AND DECISION MAKING

2.1 Playbook examples

While the specific etymology of playbooks is difficult to identify, it is commonly accepted that playbooks originated from the world of sports, specifically American Football. The first known sports playbook is attributed to Fielding H. Yost [6], coach of the University of Michigan football team, in 1918. A playbook typically consists of a book of plays, or an instruction book that diagrams plays to be used [9]. Playbooks have subsequently been used by practitioners from multiple disciplines, including Business, Emergency Response, Military and Defence, and User Experience (UX) Design [6],[8]. In UX Design, playbooks typically provide a set of criteria, standards, UX research and human-centred design tools to guide a multi-disciplinary team on designing services with real users in mind [8]. For this research, the playbooks were used as inspiration for the POV Workshop and a model for defining the UXR Playbook and plays.

2.2 Challenges in industry

Developing a valuable UXR POV is a topic that hasn't received sufficient research attention. Its controversy arises from the fact that the value of crafting a UXR POV can vary greatly depending on the context—whether in academia versus the industry, in-house research versus consultancy, or within mature UX organisations compared to small, emerging teams. Furthermore, what constitutes a "valuable" UXR POV can diverge based on the expected outcomes. For instance, a researcher in a startup may deem their UXR POV satisfactory once it informs immediate business decisions. In contrast, an experienced researcher leading efforts for a well-established business in a traditional domain may need to continuously refine their UXR POV over the years to consistently deliver actionable findings contributing to product direction and strategy.

The complexity and specialisation of users and their workflows challenge researchers in constructing a robust POV. Interestingly, while there are a wealth of articles exploring the development of valuable UXR insights and frameworks to transition from research questions to actionable insights, there is a noticeable gap in coverage regarding the creation of a UXR POV. Unfortunately, there is a lack of available articles or tools to support the UXR community's journey towards establishing a strong UXR POV. This gap leaves UXR professionals without the resources to advance and enhance their UXR perspectives effectively.

Adding to the problem of available resources for UXR's, is the fact that many practitioners formal education and training is in Psychology and related fields, which typically set an expectation for a high degree of scientific rigour and robust experimental design (although Robinson et al [10] note the reduction in scientific rigour across the research discipline). UXR's formal training contribute to a reluctance to establish a POV - although more research is needed

here. While in academia, a POV can only be attained by rigorous testing of multiple variables, in industry, this is usually infeasible due to time, resources, access to population samples, and tech constraints. This introduces a dilemma for the UXR discipline, as there is usually an expectation from stakeholders and other disciplines for UXRs to offer clear interpretations, recommendations, and meaning of the data and insights they uncover without the ability to research all possible variations.

2.3 Situational Awareness and Decision Making

Endsley [11] proposed a formal definition of Situational Awareness (SA) as: the perception of elements in the environment within a volume of time and space, the comprehension of their meaning, and the projection of their status in the near future. In Endley's definition, SA is a form of a human cognition, i.e. information held and represented in the mind. There are similarities and differences between SA and forming a PoV. SA refers to the mental representation of one's current task situation, but POV is built over a longitudinal time frame and is not just dependent on the current tasks situation. Decision making occurs in a recurring cycle of observe-orient-decide-act (OODA) in both, i.e. when forming an SA and POV.

Endsley & Jones [12] draw a parallel between these levels of SA and the "cognitive hierarchy" of data–information–knowledge–understanding, as suggested by Cooper [7], who said, "data correlated becomes information; information converted into situational awareness becomes knowledge; and knowledge used to predict the consequences of actions leads to understanding". The UXR PoV correlates with this cognitive hierarchy of data-information-knowledge-understanding. The top level here is Wisdom. This is the part where we need to build a PoV to help us to enhance our SA, hence having a common operating picture in terms of UXR. This paper presents play cards as part of the playbook to help UX researchers build a PoV and make decisions. There are two levels of granularity in terms of viewpoints centred on the OODA loops and situational awareness with respect to the UXR PoV and play cards. The first level is the cognitive level i.e., using the building blocks and play cards to develop your knowledge in terms of UXR PoV. Each card represents multiple OODA loops to enhance your knowledge of the unfolding circumstances while the whole process is acting on what you know so you can make decisions, e.g., through prototyping, building a business case, creating an MVP. The second level is the business level, i.e. observe-orient-decide-act cognitive processes as applied in practice for business development and commercialization of a product. It can support your concept demonstrator to move up the ladder in terms of the technology readiness levels, i.e. business idea to technology development and transitioning. This is a holistic viewpoint to develop a solution e.g., a prototype and/or an MVP.

3 METHOD

3.1 Pre-Workshop: POV Building Blocks and Analogical Thinking

This section provides an overview of the structured workshop approach utilised to build the playbook [14] [17]. To kick start the planning process, the team began by curating a diverse group of
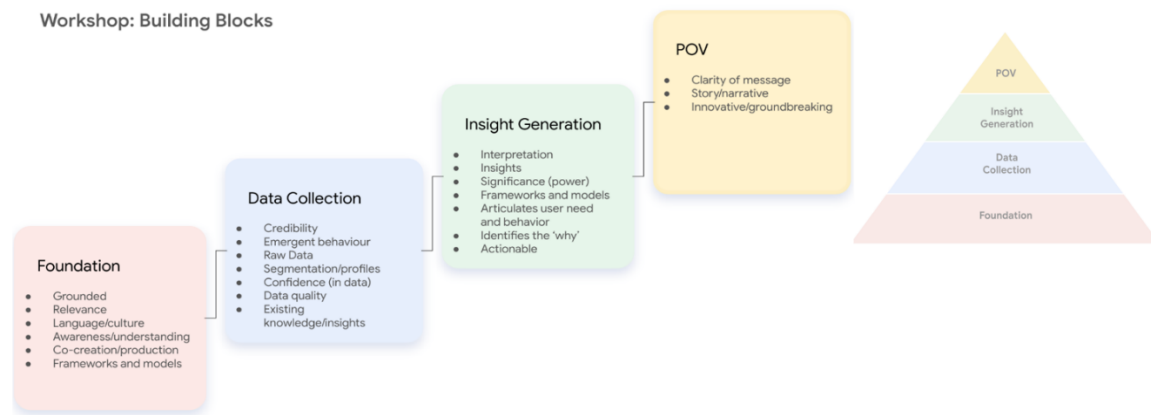
Figure 1: The Pyramid Building Blocks

UX Research participants, deliberately selecting individuals with varying levels of experience in terms of years in the field and the types of research they specialised in. Additionally, they made it a point to include researchers from academic backgrounds, thus fostering a comprehensive mix of perspectives. They strategically balanced the overall workshop plan between online and in-person activities to leverage the strengths of each format. There were three pre-workshop activities:

- **Lightning Talks** [15]: A mix of cross-disciplinary industry leaders, including experts in UX, Product, and Data Science, were invited to deliver inspiring lightning talks. These talks fuelled the participants' creativity, shed light on the impact of UXR work, defined the UXR Point of View (POV) and data science approach to POV, and highlighted its role in advancing UXR maturity.
- **Analogical Thinking Exercises**: The goal was to stimulate participants' creativity and encourage them to think beyond their current research paradigms and organisational norms. Jones [16] successfully explored analogical reasoning for provoking creativity. To achieve this, two unrelated examples were presented, drawing from different cultures and industries: the art of making fine wine and the production of lotus silk. Participants were provided with articles and videos about these examples and asked to study them. Subsequently, participants were tasked with comparing developing a valuable UXR POV to the examples provided, using a template for reference. This exercise culminated in a discussion where participants shared their insights and perspectives.
- **Definition Agreement Exercise**: To ensure a common understanding of terminology and concepts, a UXR POV pyramid was proposed, comprising four key levels - Foundation, Data Collection, Insight Generation, and UXR POV. This pyramid and its levels were shared with the participants to gather their feedback. Participants were then encouraged to brainstorm and contribute to defining building blocks for each stage as illustrated in Figure 1. The discussions

were highly productive, with participants from diverse backgrounds realising that, despite differing contexts, a shared perspective on developing a valuable UXR POV emerged.

These pre-workshop activities primed the participants for an in-person workshop and facilitated a shared understanding and a strong foundation for exploring UXR POV and its significance.

3.2 Workshop: Building a Playbook

The team explored various options for designing the workshop flow and exercises, contemplating using established problem-solving frameworks such as design thinking or the double diamond approach [17]. They opted for a simpler flow to capitalise on the participants' in-person time fully. The workshop was structured to encompass both individual and group work, aligning with the overarching goal of developing practical building blocks for a realistic UXR POV. The primary aim was to facilitate an informed discussion on the UXR POV pyramid building blocks while preserving the authenticity of participants' industry experiences, free from external influence. To achieve this, the workshop was divided into two parts where Part I focused on previous experiences and existing UXR POVs:

- Individual Exercise: Participants engaged in an individual exercise where they revisited their previous UXR Point of View (POV). This exercise encouraged them to share and study their own perspectives.
- Interactive Pair Exercise: Participants were paired up for an interactive exercise in the next phase. They engaged in meaningful discussions about the significance of the UXR POV building blocks,
- Collective Sharing: The team came together to share the insights and discussions that emerged during their pairs' work. This forum provided a valuable opportunity for questions and clarifications.

Part II: Developing the UXR POV Playbook:

- Playbook Defined: A playbook, traditionally used in sports, contains a team's strategies and plays designed to secure victory. A UXR POV playbook is a set of cards that guide UX

research leaders and practitioners, offering various strategies and methods to construct a valuable point of view.

- Offensive Strategies are premeditated tactics and plays employed to score points or goals during a game.
- Defensive Strategies encompass planned tactics and plays to thwart the opposing team's scoring attempts.

In a sequence of four exercises, participants worked collaboratively in sub-teams. For each level of the UXR POV pyramid, they tackled two critical questions and later shared and discussed their findings with the team:

- Moving Forward: What actions and practices can propel the team to achieve the POV level of the pyramid?
- Sustaining Quality: What actions and practices enable their team to maintain the quality of this level of the pyramid when confronted with adverse situations?

The outcome of these exercises was a substantial collection of potential playing cards for the UXR POV playbook, providing a valuable resource for advancing and enhancing UXR perspectives. The previously generated building blocks were employed as benchmarks to evaluate which ones significantly contributed to the success of the examples from Part I. The initial structural components of each pyramid layer were formed using these building blocks. Ultimately, these components would make up the playbook's elements. For instance, the outputs of the foundation layer should be based on actual business problems and should use existing frameworks and knowledge. Similarly, the Insight Generation outputs should answer the "why" of the insight and be actionable. It's important to note that every POV is built on each pyramid layer (see Figure 1). Without a solid foundation and additional data collection, Insight Generation outputs are typically not achievable.

3.2.1 Participants. The workshop featured a diverse group of professionals with backgrounds and experience levels in the fields of Human-Computer Interaction (HCI) and UXR. Participants (n=8) from various nationalities, including Egyptian, English, Greek, Italian, Mexican, and Turkish, represented various age groups. Participants' professional profiles:

- HCI Professor: A distinguished HCI professor with extensive expertise in both the theoretical foundations and practical applications of HCI.
- Two UXR Leaders from Technology Companies: These participants held strategic leadership roles and managed UXR teams, demonstrating a deep understanding of industry trends and challenges.
- Experienced Qualitative Methods UX Researcher: This participant brought significant experience in qualitative research methodologies specific to UX.
- Two PhD-Experienced UX Researchers: These participants enriched the workshop with their strong theoretical solid foundations in UX research.
- Two Mid-Level Experienced UX Researchers: Participants in this category combined practical skills with a solid grasp of user-centred design principles, contributing hands-on insights and practical perspectives.

The workshop's diversity was a notable strength, contributing to a rich exchange of ideas and experiences. Participants with various backgrounds, including those with stronger research expertise and from technology-related roles, brought unique insights to the discussions. The strong representation of UXR leaders from technology companies added depth to our conversations within that sector. Although we aimed to include participants with varying experience levels, the diverse mix of expertise within the fields of Human-Computer Interaction (HCI) and User Experience Research (UXR) enhanced the overall learning experience.

3.3 Post-Workshop: Application and Validation

The routes to exploitation of the playbook through application to case studies in addition to evaluation through expert reviews is in progress. User feedback from the UX community and application to UX case studies to review the playbook process and its suitability are needed. The playbook will be revised and building blocks updated based on these planned future iterations to assess consistency, completeness, conciseness, expandability and sensitiveness of building blocks, hence the overall playbook. Validation workshops and case study insertions through a web-based platform are planned to gather feedback.

In addition, the authors have begun to identify projects within their respective software companies to fully validate the approach within the context of software development, creating publishable case studies.

4 RESULTS: UXR POV PLAYBOOK

This section presents the pyramid shape as an allegorical framework for systematically developing a UXR POV.

4.1 The Pyramid

The pyramid's distinctive geometric structure, characterised by its sharp triangular faces, represents the methodical and progressive approach necessary for constructing a sound UXR POV. Analogous to the convergence of each face towards a pointed apex, the evolution of a focused and impactful UXR POV mirrors the refinement of research processes. Furthermore, each face of the pyramid can metaphorically represent various disciplines and journeys toward achieving a quality product. For instance, they symbolise technology, marketing, or other pertinent fields. These disciplines converge toward the apex of a complete and integrated POV, illustrating the synergy that emerges when multiple domains align and contribute to a refined UXR POV. The UXR POV's distinctive four levels:

- **Foundational** - At the base of the pyramid, it's vital to establish clear business objectives and a robust research project purpose and plan. This forms the bedrock of POV credibility.
- **Data collection** - The process involves gathering pertinent data, both existing and new, utilising suitable research resources and techniques. Data quality remains central, as it directly influences the generation of meaningful insights.
- **Insight generation** - Moving upward, the focus is on uncovering impartial meanings within the data, which serves the dual purpose of informing business decisions and empowering users.
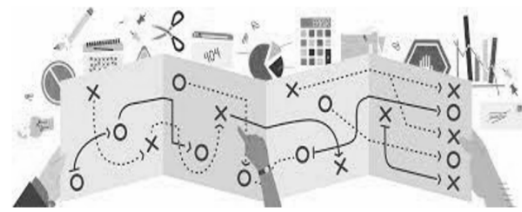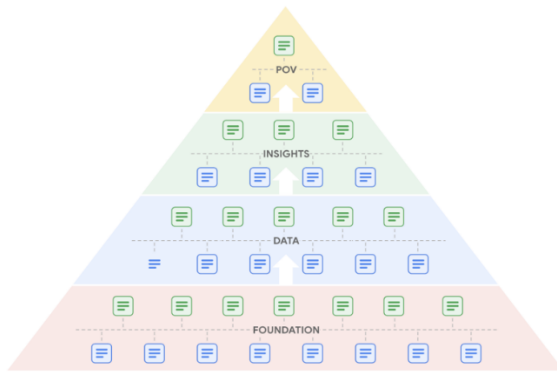
Figure 2: The POV pyramid playbook framework & pyramid level - [9]

- **UXR POV** - Progressing upward, the emphasis shifts to crafting a compelling POV that drives impact, communicates effectively, and undergoes validation through collaboration with other disciplines.

4.2 The Playbook

The UXR playbook defines a set of plays and instructions for practitioners to build, establish, and land a compelling UX Research POV. It also includes several offensive and defensive plays to create a POV and effectively remove roadblocks successfully. We aim to equip UXR practitioners with comprehensive strategies and tools to empower them to build valuable UXR Points of View (POVs). Structured within a pyramid framework, as illustrated in Figure 2, the playbook serves as a useful reference for cross-discipline teams and UXR professionals. Its primary goal is to provide various strategies for effectively constructing valuable UXR POVs. This playbook is divided into four distinct levels, which correspond to the levels of the UXR POV pyramid. Each level features two sets of cards: one for "Best Practice" (offensive) strategies and the other for "Be Ready" (defensive) strategies. The playbook encourages a dynamic back-and-forth use of different cards, representing the adaptability and movement between these levels as needed.

The POV pyramid's four distinct levels (Figure 2), each house the playing cards that are most pertinent to the corresponding level. This figure also illustrates how one can transition from a starting point to an end goal in sight, which helps to build a compelling POV. This is similar to the Snakes & Ladders concept, where one can utilise the playbook cards to transition through the POV pyramid level with the help of cards dedicated to each building block. The cards contain cross-references to related cards in the playbook to support this UXR POV transitioning. This is demonstrated through two examples in the next section.

One key advantage of this playbook is its adaptability and versatility. Regardless of their maturity levels, UXR practitioners across various industries and organisational sizes can benefit. Each practitioner or team can select the cards that best align with their specific needs, guiding progress in their POV journey and overcoming any hurdles they may encounter.

4.3 The Playbook Cards

Each card represents a potential obstacle or catalyst for progressing the POV and has two sides: (1) the front side that includes the issue, card type, a thought-provoking quote, and possible related cards addressing the same issue, and (2) the back side that provides a detailed description of the guidance.

4.3.1 Playbook card example 1: Stakeholder / funding bias. In the workshop, participants highlighted a common roadblock: "Stakeholders/funding bias," a challenge encountered across industries. Stakeholders and funding sources often have preconceived notions about research outcomes, making it hard for researchers to challenge these assumptions. To address this, researchers are encouraged to start by crafting well-defined research questions and objectives that prioritise user needs over stakeholders' interests, as illustrated in Figure 3. Additionally, they should refer to the Methodology and Sample cards to minimize bias and promote inclusivity and objectivity in the research process.

4.3.2 Playbook card example 2: Data Sharing. One of the building blocks identified by participants in the workshop is "data collection". This touches on data-related entities, including credibility, emergent behaviour, segmentation, confidence, and quality. The data collection layer sits between the "foundation" and "insight generation" layers in the pyramid. This aligns well with the cognitive hierarchy of data–information–knowledge–understanding. However, there are challenges to enabling better data sharing including, access to data, the ability to triangulate and adequate data storage. Figure 3 illustrates a playbook card that addresses the phenomenon of data sharing and provides examples of best practices including establishing a data-sharing protocol amongst stakeholders to enable better collaboration and forming a data sharing group to help streamline the process. It is envisaged that the use of these playbook cards will lead to enhanced PoV concerning data sharing in UXR.

4.3.3 Play example: Stakeholder buy-in. Foundational research is crucial for researchers to develop a meaningful PoV. Gaining buy-in from stakeholders for foundational research is an important ingredient for the growth of the user experience research practice at any organisation. It fosters a supportive and collaborative environment, facilitating the effective integration of research into product
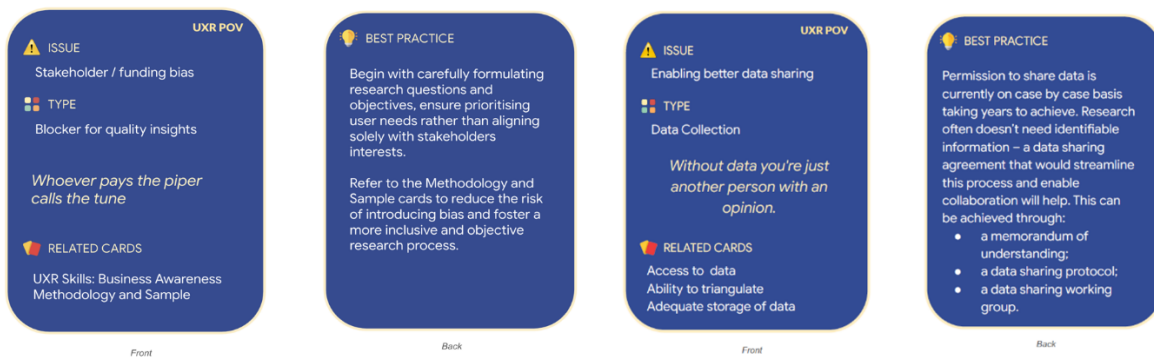
Figure 3: Stakeholders / funding bias playbook card & data sharing playbook card
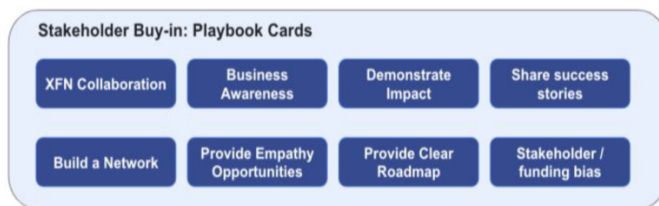

Figure 4: POV playbook defensive play example.

development. UX teams often try various strategies to address the following questions:

- How can we get stakeholders and leaders to support the foundational research effort?
- How can we ensure that we receive a commitment to sponsor the research?
- How can we ensure that we obtain commitment from stakeholders and leaders so that we can leverage the research insights?

The playbook has a Stakeholders' buy-in play with the following eight cards as shown in Figure 4 Cross-functional collaboration, Team and business awareness, Demonstrating short and long-term impact, Sharing success stories, Building a network, Providing empathy opportunities, and Providing a clear roadmap.

5 CONCLUSIONS AND FUTURE WORK

The conclusion section provides an overview of the application and benefits of having a compelling PoV, presents the limitations and routes to exploitation and discusses the validation of the UXR PoV Playbook.

Applications: This paper has presented an argument that there is an expectation for UXR practitioners to leverage practices and knowledge to establish and communicate POVs, however, there is a lack of tools, guidelines, and practices available. While it is not feasible to identify all the possible ways to establish a POV, the proposed UXR POV Playbook introduces a framework that includes many of the building blocks required to establish a POV. In addition, the Plays (combination of cards aligned to a specific scenario) will provide the necessary guidance to UXR practitioners to help drive

towards establishing a POV. There are numerous applications of the POV Playbook:

- To support UXR practitioners in building compelling POVs that elevates the user need and requirements
- To help organisations uplevel/train UX Researchers in best practices and approaches to building POVs
- To support UXR teams in creating strategic research plans and programs
- To guide cross-functional teams about the scope, breadth, and quality of UX Research
- To increase the integrity and credibility of UX Research methods, observations, and insights
- To assist UXR Practitioners in employing strategies to successfully create a POV and effectively remove roadblocks.

The future iterations of the PoV UXR playbook will comprise a strategy to translate business objectives into UXR strategies. The lack of effective communication across design, product and engineering can lead to gaps in data and recommendations, impacting the expectations of various stakeholders.

Limitations: There are limitations in the framework and approach – while there is a great deal of flexibility in the ability to create plays that will help to build a POV using the cards that will be generated at the outset, there are an infinite number of scenarios that could be faced by UXR practitioners across multiple domains/industries. It is not the goal of this effort to identify all plays but instead to build a flexible and accessible framework that will help the discipline establish guidelines/plays that can be shared with the UXR community. The community will have an opportunity to create their own industry-specific cards and plays, and either make them available to other practitioners or keep them private as part of their intellectual property. A website will be published, and practitioners will have the opportunity to propose cards and plays. Another limitation is that the playbook, cards, and plays cannot guarantee that UXR's will be successful in establishing POVs, as there are multiple factors that contribute to the process of building foundational knowledge, and uncovering insights however, they will help to prepare and address the challenges and opportunities faced by practitioners via the understanding of the cards, and application of defensive or offensive strategies.

Validation: Validation of the framework, approach, cards, and plays has already begun and will be expanded once the cards and

plays have been published. Here are a number of ways that validation will take place:

- One of the authors is currently identifying projects in the field of software development to validate the approach and framework.
- A fishbowl discussion between the authors will be held at Google Inc. Annual UX Conference in November 2023 - audience members will have the opportunity to critique and contribute to the framework, cards, and plays.
- Cards and plays will be shared with UXR practitioners within each of the author's organisations to gather feedback, validate cards and plays, and identify additional cards and plays.

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