Reflections on Participatory Design Practices in Public Sector IT Project Management
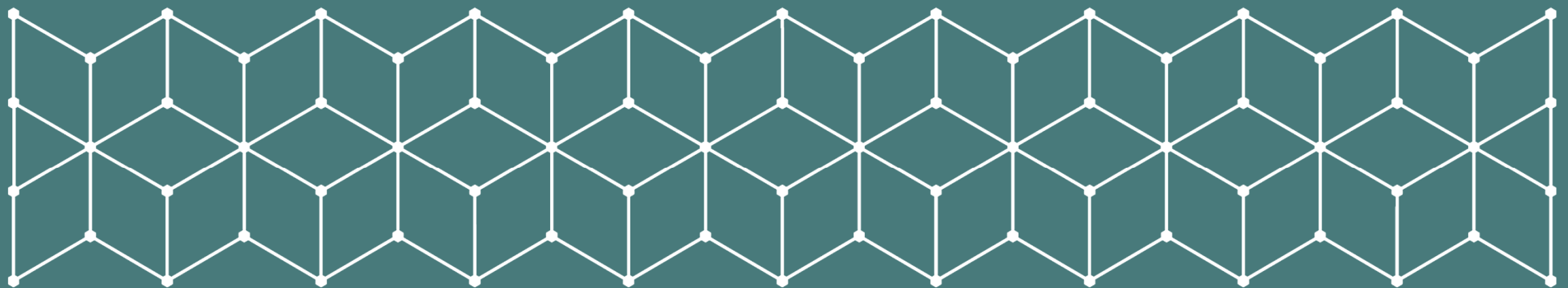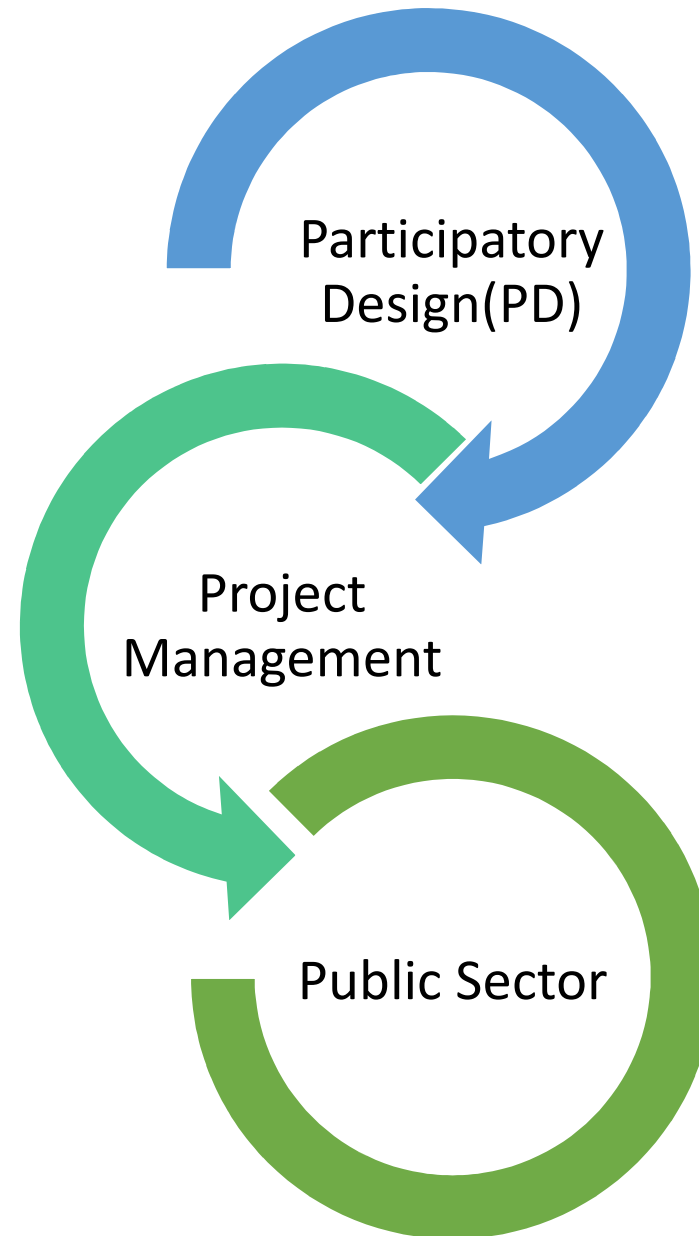
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Paper outline

Participatory Design(PD)

Project Management

Public Sector

To what extent PD principles are applied in IT project management process in the public sector?

Participatory Design

- Participatory Design (PD) is the field that stands by the principles of democratic design practices and user involvement in the design of technologies meant for them.

- Principles: Democratic practices; Power Balance; Mutual Learning.

- PD gives users the opportunity to create design choices which have a potential to become design decisions and reflected in the design result.

- The design result can be:
    - the artifact developed that influences the context for which it was designed by contributing to changing existing power structures.
    - give users a voice – and a say, so they can assume power over their situation by participating in major design decisions that are visible in the artifact.

- Despite the noble aim, PD is often critiqued as not finding its place in private or public business settings, where technological innovation is constrained by time, costs, organizational rules, regulations, and, most importantly, outcomes.
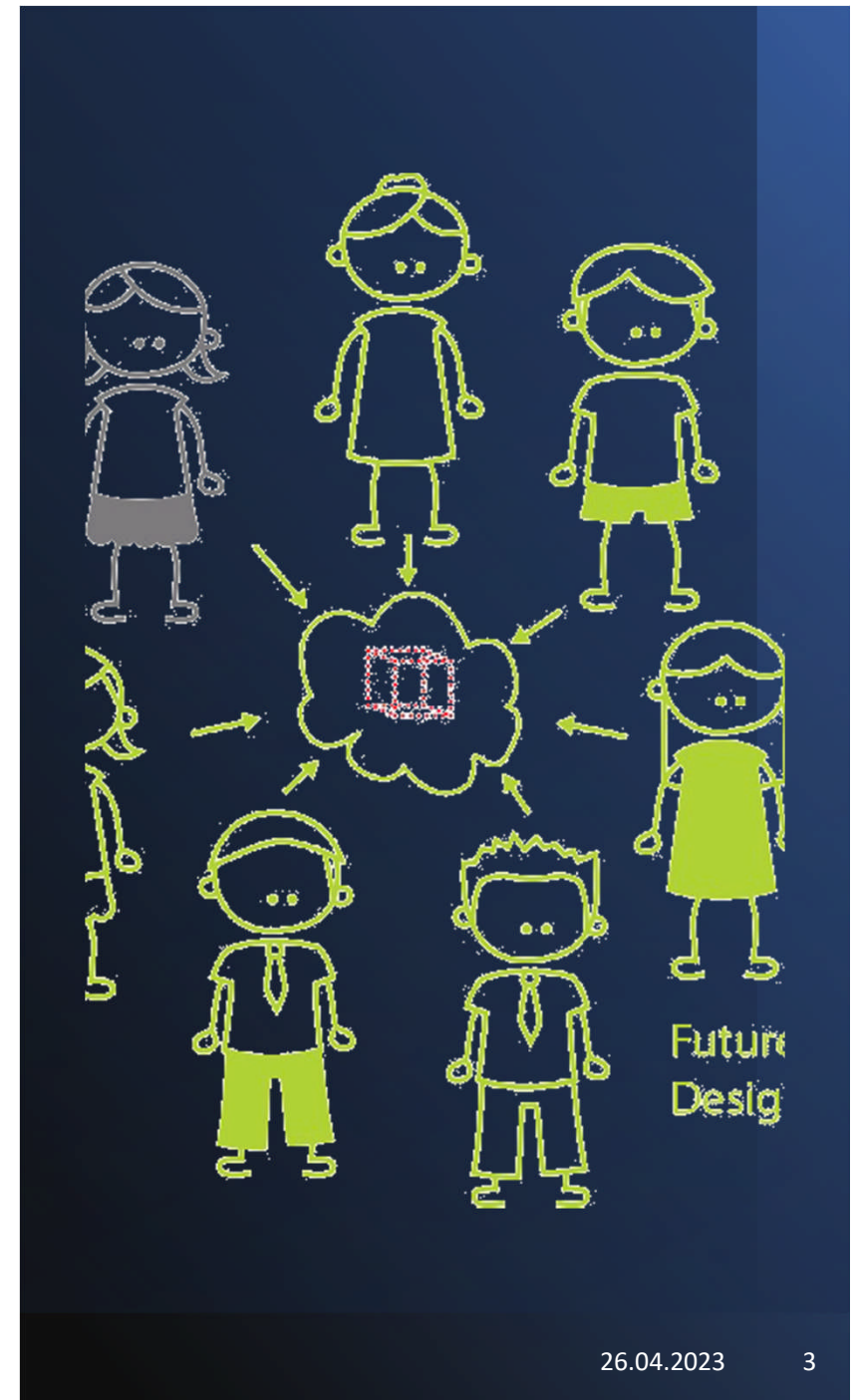
Project Management

- "Projects" are temporary structures that aim to deliver outcomes within specific timelines, budget, quality, risk, and benefits.
  - In general, projects involve initiation, planning, execution (in distinct stages and iterations and by aligning with software design and development phases), controlling, and closing.
- Project Management is the field focused in improving processes, principles, methods and techniques in managing project. Different methodologies prevail: PRINCE2, PMI etc.
- Projects drive change and innovation in organisations.
- In companies/institutions/organizations specialized in offering specific services and products, achieving the project outcomes has shifted from exclusive internal development (R&D) to cooperation with external partners.

Public Sector

- Project management practices in the public sector are influenced by the necessity for accountability, legally regulated conduct, resource management, and the political motivation to deliver results within specific time limits.

- Accountability is exercised toward a broad range of stakeholders, such as elected officials, various members of the government management structure, employees, citizens, special interest groups, and the media.

- Citizens' involvement varies in regard to different conceptions of democracy and a certain mode of governance.

- Marketization has also influenced public sector IT service provision by strengthening the cooperation with the private sector.

Method

- Caws based: Two IT project management cases, one in Albania and one in Norway.

- **Data collection**: Document Analysis, Meeting Minutes, Interview

- Data analysis was done in three phases.

  - Content analysis with Apriori codes from the project management phases presented in the literature: initiation, planning, execution, closing, and controlling.

  - Reflective practice analysis - We reflected on how and to what degree the two main PD elements described in the literature were present in each case: a) participation – seen both in terms of mutual learning and power balance concerns and b) the PD design result. Then, we conducted a second round of reflections by looking across cases.

Safety Cameras Project

- **Initiation** – Working groups for ideas generation; Discussion in municipality structures; Prioritisation;

- **Planning**
    - **Team building**: the citizen safety department as the project executive, a functional safety specialist representing the citizens' view, and a technical safety specialist representing the technical requirements, a procurement officer.
    - **Deliveries:** Request for Proposal (including requirements and procurement strategy); Initial Plan; Publishing the Bid in the official public procurement site; Evaluation of Bids;

- **Implementation**
    - **Solution design**: Solution provider in cooperation with the technical and functional experts in the project group, defined the best strategy to deploy the cameras around the city to fulfill the safety need.
    - **Implementation**: 4 months.
    - **Training:** Was provided for the IT experts operating and maintaining the cameras.

- **Monitoring and Control** - The project manager reported to the citizens' safety department, the mayor, and municipal council. Other controlling and directing entities are: the budget committee and the procurement officer. Regarding implementation, the project group controlled the deliveries from the supplier and reported to the adequate board entities regularly.

Patient Healthcare Record (PHR)

Investigate technological possibilities that would support patients in need of rehabilitation after Acquired Brain Injuries (ABI) to take control and get empowered in their rehabilitation process.

- **Initiation** – PD research led by a researcher with the initiative of the hospital. Ethnography; Workshops;

- **Planning phase**
  - The research and design (R&D) results were applied to ideate a project and apply for external funds.
  - Funds granted by a public entity aiming to incentivize institutions to contributes to society's needs to boost regional development.
  - A project manager was assigned. A project group and project board were established. Representatives: the hospital (patient representatives, management representatives, IT experts that know the existing technologies), the researcher from the academic institution, and the funding institution.
  - Needs defining and Market Dialogue;
  - Non-Functional Requirements and Publishing the Bid:
  - Bid Conference:; Evaluation; Decision

- **Implementation** – To be defined with the solution provider

- **Monitoring and Control**
  - The agreed PD approach was a control mechanism for the planned activities.
  - The project management framework was used for monitoring and control: project phases and project organization.
  - Official procurement site that safeguards a fair procurement process.
  - During implementation, the project team oversees the supplier's work and reports progress to the project board.

PD in public sector IT project management

Enhance user participation in the planning and implementation phase through PD methods

- Some degree of participation are involved in both projects.
  - User/Citizen Involvement
  - Technology representatives
  - Interaction with possible solution providers
  - Interaction with bidders regulated through procurement frameworks
  - Implementation participation: technical representatives or end users – regulated between the project group and the solution provider

- The discourse on participation and relevant stakeholders' involvement should also be promoted during the planning and initiation phase.

- Tools and techniques from PD practices can be applied to promote co-design.

- New PD techniques for project management in public sector digitalization initiatives should be explored.

Promote Mutual Learning with Suppliers in Market Dialogue PD workshops

- Lack of mutuality of learning in initiation or planning stage of the project. Each actor in the planning phase represents a specific area of expertise. They engage with each other to draft the high-level requirement document presented in the bid. While some mutual learning happens in those instances, they are detached from the real setting where the knowledge of alternatives stands, the suppliers.
  - *In the PHR project, such a gap in mutual learning is filled by market dialogue.* This allows the end users' representatives to sit with the possible suppliers to discuss: What is a viable solution with existing resources? What would the supplier be willing to do to engage in innovative solutions if the requirements are not covered fully by what is provided today?

- During the implementation process in the SC case, no more mutual learning is happening. The supplier applies what they consider best and might lose sight of what the citizens need. Citizens not knowing how their needs were addressed and the benefits and risks that the technology brings can experience an unethical impact in the long run.
  - Instead, in the PHR project, the design phase involved the discussion of the designs directly with the end users and higher management by using high-fidelity prototypes. *Prototype evaluation should not focus only on the look and feel and functionalities provided but is used to capture more in-depth and inherited issues of technology such as accountability, integrity, and accessibility of data.*

- The market dialog provides the opportunity in sourcing IT projects to have both user and technology representatives to share knowledge and values, engage in co-design moves, and produce design alternatives. PD techniques and tools should be applied in the market dialogue.

- We will define this as market co-creation techniques and suggest using generative tools that the suppliers can provide.

Making "Power" a central theme to consider in each phase

- We found that the power dynamics discourse is the most underestimated PD principle in both projects.
  - For the SC project, the discussion of power is inexistent. The municipality considers the elected representatives as guardians of democratic decisions that favor the majority that has elected them.
  - In the PHR project, the discussion on power is deeply considered in the initiation phase. The final result addresses the power imbalance between patients and healthcare practitioners with the aim of patient empowerment. However, the power balancing has been more tacit during the process, counting on representatives having equal power during the project management process.

- Project management relies upon established organizational hierarchies and agreed-on processes to deliver on time and within budget. These hierarchies can create power imbalances if all actors' involvement are not treated equally.

- The power discourse should be part of IT project management. It should become a central theme that is reflected upon in every phase and activity where different stakeholders engage.

- The discussion on power should be balanced with the necessity to follow the regulations that define the frame for some project management activities.

Control and monitor the delivery of "PD results"

- SC project: The design result addresses an issue that the citizens brought forward, and it is not in principle related to the empowerment of a marginalized user group. *While the focus is on the result, the discussion on the solution's impact on marginalized user groups and how to make the solution suitable and understandable for every citizen category remains obsolete.*

- PHR project: The design result is ideated based on PD principles.
  - The project impacts empowering patients and giving them more control in their rehabilitation. T
  - he involvement of the PD expert as a project advisor contributes to highlighting all relevant stakeholders and involving them in the design process. The process adopted by the project also promotes PD project management.
  - Power dynamics are actively considered and addressed, so the solution represents the views of everyone and creates the opportunity to have emerging new practices.

- The design result represents the user need in IT project management. However, that is not sufficient. Broadening the scope of the design result toward a "PD design result" can contribute to delivering more citizens' friendly solutions and guarantee an ethical and responsible process and delivery.

- New methods should emerge in PD literature to become part of IT project management control and monitoring.

Discussion

- Compromising power balance for fast results is not a choice for PD, and compromising timelines for achieving the true power balance among stakeholders is not feasible in the face of resource limitations, existing organizational structures, and defined regulations that halt the project from delivering what is expected.

- However, we found that in the public sector IT project management, PD practices are present.

- The market dialogue is a good example.

- However, in both fields, additional questions and remarks should be explored, such as:

    - Who should organize the participatory activities?

    - How to balance between existing hierarchical structures and the necessity to cooperate?

    - How to make PD techniques and tools more efficient and delivery driven?

    - What tools and techniques are adequate for each phase of project management?

    - What does participation mean in project management?

    - To what extent is power balancing possible?

- Answering these questions requires PD and project management researchers to reflect on them in future research by exploring new practices or adapting the existing knowledge to co-flourish and contribute better to society.

Thank You!

Questions?