

# Castellum at University of Hamburg

Castellum Community Meeting (v2.0)

 Slides |  Source

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November 5, 2024

# About

## Me

-  **Position:** Postdoctoral Researcher & Lab Manager at the [Institute of Psychology](#) at the [University of Hamburg](#)
-  **Education:** BSc Psychology & MSc Cognitive Neuroscience (TU Dresden), PhD Cognitive Neuroscience (FU Berlin)
-  **Research:** I study the role of fast neural memory reactivation (“[replay](#)”) in the human brain using fMRI
-  **Contact:** You can connect with me via [email](#), [Twitter](#), [Mastodon](#), [GitHub](#) or [LinkedIn](#)
-  **Info:** Find out more about my work on [my website](#), [Google Scholar](#) and [ORCID](#)

## This presentation

-  **Slides:** Slides are publicly available at <https://lennartwittkuhn.com/castellum-uhh-presentation>
-  **Software:** Reproducible slides built with [Quarto](#) and deployed to [GitHub Pages](#) using [GitHub Actions](#)
-  **Source:** Source code is publicly available on GitHub at <https://github.com/lnnrtwttkhn/castellum-uhh-presentation>
-  **Contact:** I am happy for any feedback or suggestions via [email](#) or [GitHub issues](#). Thank you!

# Agenda

1. Background
2. Castellum at UHH
3. Discussion

# Background

# The Faculty of Psychology and Human Movement Science

- ▶ Institute of Psychology: 13 professorships
- ▶ Institute of Human Movement Science: 6 professorships
- Institute of Psychology: 11 of 13 groups *regularly* conduct studies with human participants
- Diverse **participants groups**: All age groups (including children), “special” groups (e.g., with congenital blindness, psychiatric disorders, etc.)
- Diverse **experimental settings**: In-lab behavioral, groups, online, observational, MRI, EEG, fNIRS, etc.



Source: UHH | Baumann

# Current participant databases

## The status quo

At the Institute of Psychology ...

- 4 (of 11) groups have a participant database
  - mostly used for “special” participant groups (children, participants with blindness or psychiatric disorders, etc.)
  - paper- or Excel-based with limited access by a few group members
  - Developmental Psychology group receives contact details from the Resident’s Registration Office
  - various issues & concerns regarding the integration with Castellum (see discussion)
- Everyone else: ad-hoc recruitment via [SONA](#), [Stellenwerk](#), [Prolific](#) (online studies only) or advertisement on campus

## The goal

Excerpt from the [Digital Strategy](#) of the Faculty of Psychology and Human Movement Science (2022):

*“We optimize the digital recruitment of study participants. We have access to a broad participant database or platform through which participants can be recruited according to specific criteria. We clarify the requirements for a platform for online studies, evaluate alternative systems and take care of the technical integration.”*

# Update: Castellum at UHH

# Summary

## Previously: Task force prepared roll-out of Castellum

- Tasks force set up to plan roll-out of Castellum (see <https://lennartwittkuhn.com/castellum-uhh/>)
  - Monthly meetings from June 2023 to October 2023
  - Discussions and working (sub-)groups around the roll-out of Castellum
  - Examples: “*Who gets access to Castellum?*” “*How are users trained?*” “*What are the rules (e.g., for database maintenance)?*” “*Who supports recruitment campaigns?*” “*Who is responsible for data protection?*”
  - Result: First draft of Data Protection Whitepaper and general recommendations for shared use
- Task force concluded work with recommendations / ideas for institute-wide use of Castellum
- Technical setup in place

## Now: *Actually* rolling-out Castellum institute-wide

- Agreement on shared use of Castellum based on task force recommendations
- Finalize and agree on Data Protection Whitepaper
- Assign roles and responsibilities for long-term maintenance

*for work-in-progress User Agreement, Data Protection Whitepaper and Training Concept, see:*

<https://lennartwittkuhn.com/castellum-uhh-docs/>



# Current state of roll-out of Castellum at UHH

*bold font = current focus*

## Technical

- Production instance running
- Test instance for updates and experimentation running
- Website for independent sign-up of participants live and connected to production instance
- Fixing minor bugs and server hiccups

## Users

- Production instance piloted within research group
- **Refining onboarding and administrative procedures**

## Process

- First draft of data protection whitepaper prepared (see <https://lennartwittkuhn.com/castellum-uhh-docs/>)
- Draft of user agreement in preparation (see <https://lennartwittkuhn.com/castellum-uhh-docs/>)
- Compliance with requirements by data protection officer
- **Preparing institute-wide roll-out**

## Discussion

# Institute-wide roll-out: Who

- Who decides? Who takes responsibility?
- Institutional process are slow and other issues take priority
- Need is not great enough?
  - Recruiting young + healthy participants is easy
  - There are “competitors”
    - SONA + test subjects hours (participants “for free”)
    - Stellenwerk (popular website for student jobs)
    - Flyers in the mensa
  - Accustomed to suboptimal processes?

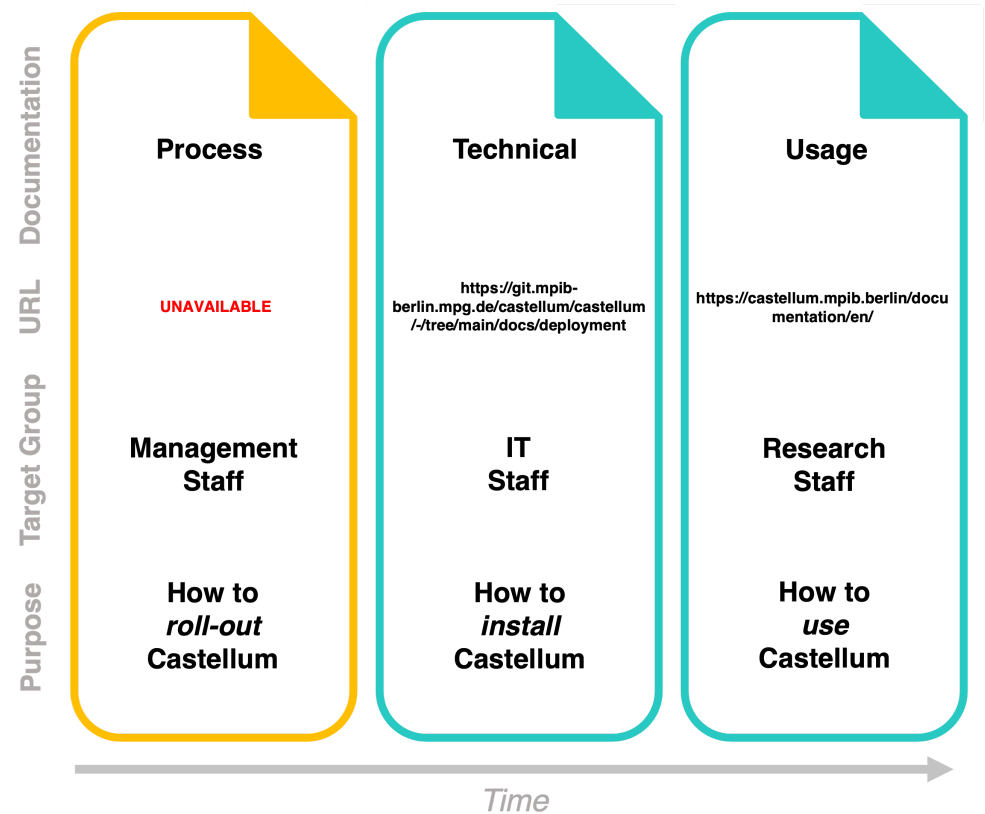
... stay tuned!

# Community Goal: Process Documentation

“Software alone does not guarantee data protection. It (also) depends on the accompanying organization

## Process documentation

- What is needed to **roll-out** Castellum?
- Addresses a different target group!
- Guides the work of task forces, staff in management , etc.
- Our work-in-progress draft [here](#)



# Thank you!

## Castellum MPIB



- Castellum Team at MPIB
- Tobias Bengfort & Karolina Mader
- Maike Kleemeyer

## Contact

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🏠 <https://lennartwittkuhn.com/>

🐙 [GitHub](#) 🐘 [Mastodon](#)

## Castellum UHH



- Castellum Task Force
- Corinna Diercks (Data Protection Officer)
- Aleksandra Pilpilides (Faculty Management)

## Slides

📄 **Slides:** <https://lennartwittkuhn.com/castellum-uhh-presentation>

🔗 **Source:** <https://github.com/lennartwittkuhn/castellum-uhh-presentation>

📦 **Software:** Slides built with [Quarto](#), [GitHub Pages](#) & [GitHub Actions](#)

💬 **Contact:** I welcome any feedback via [email](#) or [GitHub issues](#). Thank you!

# Appendix: Community Meeting Sep 2023

# How it started ...

- New group: *“We will need a participant database.”*
- Other groups: *“Oh, we actually also need a participant database.”*
- Admin: *“Great, this is part of our Digital Strategy, let’s do it!”*

## First steps

- Query interest / needs / demands from all stakeholders
- Understand current practices and existing solutions
- Discussions in faculty meetings and university hallways
- Initial consultations with data protection officer









Eventually: First meeting about Castellum in December 2022 ✨



Computer in Orange County offices, 1967 (CC BY 2.0)

# How it's going ...

## Castellum Task Force

-  10 active members (8 scientific staff (4 PhDs, 3 PostDocs, 1 group leader), 2 IT staff)
-  On-going consultations with data protection officer
-  Meetings for discussion & exchange (hybrid, monthly)
-  Project website for documentation (see next slide)
-  Test installation of Castellum on UHH servers
-  Mailing list for announcements
-  Chat for detailed internal communication
-  Shared docs to prepare whitepaper, internal documentation, etc.

## Tasks (non-exhaustive list)

- Identified needs, concerns, expectations, ...
- Familiarized with Castellum using test installation
- Distribute sub-tasks, collect and discuss insights
- Create user agreement, prepare data protection whitepaper, etc.
- Compliance with requirements by data protection officer
- Finalize implementation of automated sign-ups, bulk-upload of existing databases


# Project Website

 <https://lennartwittkuhn.com/castellum-uhh/> (in German only)

 <https://github.com/lnnrwttkhn/castellum-uhh/>

Castellum UHH

 Home

 Meetings

 Team

 FAQ



## Castellum UHH

CASTELLUM  
Datenschutzkonforme Probandendatenbank



Universität Hamburg  
DER FORSCHUNG | DER LEHRE | DER BILDUNG







## Über das Projekt

Die Fakultät für Psychologie und Bewegungswissenschaft der Universität Hamburg plant die **Einführung einer digitalen und datenschutzkonformen Probandendatenbank**. Die [datenschutzkonforme Probandendatenbank "Castellum"](#), entwickelt am Max-Planck-Institut für Bildungsforschung Berlin (MPIB), wurde als technische Lösung ausgewählt. Im Juni 2023 wurde eine [Task Force](#) eingesetzt, die sich aus MitarbeiterInnen der Fakultät zusammensetzt und die Implementierung von Castellum an der Fakultät vorantreibt.

- Informationen und Protokolle von **Events und Meetings** finden sich in der Übersicht der [Meetings](#).
- Die **beteiligten Personen** und deren Kontaktdaten finden sich auf der [Team](#)-Seite.






# Task Areas

1.  Integration of existing databases
2.  Initial recruitment initiative
3.  Setting up Castellum
4.  Define roles & tasks of Castellum users
5.  Functionalities of Castellum
6.  Integration with external applications

	A	B	C
1	<b>Aufgabenbereich</b>	<b>Teilaufgaben</b>	<b>Verantwortlich</b>
2		Übersicht existierender Probandendatenbanken erstellen, die in Castellum übertragen werden könnten	
3	<b>Einspeisung existierender Datenbanken</b>	Anforderungen für die Übertragung bestehender Kontaktdaten zwischen Datenbanken mit Datenschutzstelle klären	
4		Klären, wie große existierende Datensätze möglichst unaufwendig und technische effizient in Castellum übertragen werden können	
5		Empfehlungen für Maßnahmen einer Rekrutierungskampagne erstellen Flyer verteilen, Anzeigen schalten, etc.)	
6	<b>Rekrutierungsinitiative</b>	Kosten einer Rekrutierungskampagne skizzieren	
7		Datenschutzanforderungen für Server klären, an den neue Probanden zur Angabe ihrer Basisinformationen geleitet werden	
8	<b>Probandenmerkmale in Castellum</b>	Überblick erstellen über grundlegende Informationen, die von allen Probanden gesammelt werden sollen	
9		Liste erstellen mit Informationen, die für spezielle Studien wichtig sind (z.B. Studien mit Kindern, fMRT, etc.)	
10		Herausfinden, welche Rollen zur Wartung der Datenbank notwendig sein werden	
11		Verantwortlichkeitsbereiche in Castellum festlegen (z.B. Verantwortung für Datenschutzbereich)	
12		Regeln für die Zertifizierung für die Arbeit mit Castellum festlegen	
13	<b>Rollen und Aufgaben</b>	Regeln für die Pflege der Daten in Castellum festlegen (z. B. gemeinschaftliche Pflege durch alle Nutzende)	
14		Erstellen eines Manuals für die Pflege von Probandendaten in Castellum	
15		Entwurf für ein Trainings-Programm für Castellum erstellen (Vorbild MPIB; Kontakt Karolina Mader / Train-the-trainer Konzept)	
16		Klären, wie sich Castellum-Nutzende untereinander austauschen können	
17		Klären, wie sich der Zugriff auf bestimmte Probandengruppen auf Nutzergruppen (z.B. ABs) beschränken lässt	
18	<b>Funktionen von Castellum</b>	Klären, wie der Zugriff auf Daten von Minderjährigen in Castellum geregelt wird	
19		Klären, wie in Castellum Probandendaten code-basiert gepflegt und exportiert werden können	
20		Klären, wie Castellum mit externen Kalendern verknüpft werden kann	
21	<b>Verknüpfung mit Anwendungen</b>	Klären, wie Castellum mit SONA verknüpft werden kann	
22		Erstellen einer Dokumentation, wie die Integration externer Anwendungen mit Castellum möglich ist	
23		Klären, wie man Probanden ausschließen kann, die schon über eine andere Plattform (z.B. SONA) teilgenommen haben	

# Discussion

# Challenges for the task force

- Everyone understand how Castellum works and what it *currently* does (not) offer
  -  Presentation and overview of Castellum with opportunity to ask questions
  -  Collect resources in one central place (e.g., website)
  -  Set-up a test-installation that is easy to access
- Get all stakeholders on board and well-informed
  - *“I have to discuss this with my group leader first.”*
  - *“I’ll ask around in my group and give you feedback next time.”*
- Diverse groups = diverse needs
  - *“We will only use Castellum if we can easily recruit teams of participants.”*
- Castellum has to be significantly better than what a group is currently using
- Diffusion of responsibility
- Benefits of investing into a common resource
- (Active) participation in the task force is an extra burden for (scientific, junior) staff

# Example: Integration of existing participant databases and access

- It took time and effort to build current participant database
- Worries about free-riders
- Worries that precious participants are going to be contacted too frequently
  - How can access to certain participant groups be reserved for certain research groups?
- Worries about legal aspects and data-privacy (“*Can we even share contact details from our existing database?*”)
- Unclear if participant consent allows transfer to Castellum
- “*We have a working solution. What’s our benefit of investing into Castellum?*”

# Summary

## Next steps

- Create user agreement, prepare data protection whitepaper, etc.
- Compliance with requirements by data protection officer
- Finalize implementation of automated sign-ups, bulk-upload of existing databases

## Lessons learned (so far)

- Involve data protection officer from the start
- Inform *all* faculty members early and in detail
- Have IT on board
- Aim for implementation (or at least documentation) not (only) discussion

# Appendix

# Task Areas

## Integrating existing databases

- Create **overview of existing participants databases**
- Clarify **requirements for transferring existing participant data** between databases with data protection officer
- Clarify how **large existing datasets** can be transferred to Castellum

## Initial recruitment initiative

- Create **recommendations for a recruitment campaign** (distribute flyers, place ads, etc.)
- **Outline costs** of a recruitment campaign
- Clarify **privacy requirements for server** to which new subjects will be directed to provide their basic information

## Define participant characteristic in Castellum

- Create overview of **basic information to be collected from all participants**
- Create list of **information that is relevant for specific studies** (e.g. studies with children, fMRI, etc.)

## Roles and tasks for Castellum users

- **Roles:** Find out which roles will be necessary to maintain the database
- **Responsibilities:** Determine areas of responsibility in Castellum (e.g., responsibility for data protection area)
- **Certification** Establish rules for certification to work with Castellum
- **Maintenance:** Establish rules for maintaining data in Castellum (e.g., collaborative maintenance by all users)
- **Manual:** Create a manual for maintaining participant data in Castellum
- **Training:** Draft a training program for Castellum train-the-trainer concept)
- **Communication:** Clarify how Castellum users can exchange information with each other

## Investigate functionalities of Castellum

- **Access:** Clarify how access to specific groups of subjects can be restricted to user groups (e.g. ABs).
- **Minors:** Clarify how to regulate access to data of minors in Castellum
- **Export:** Clarify how subject data can be maintained and exported in Castellum in a code-based manner

## Integration with external applications

- Clarify how to link Castellum with **external calendars**
- Clarify how Castellum can be linked with **SONA**
- Create documentation on **how to integrate external applications** with Castellum
- Clarify how to **exclude participants** who have already participated via another platform (e.g. SONA)