

Modular Service Structures for the Successful Design of Flexible Customer Journeys for AI Services and Business Models

Webinar Cambridge Service Alliance

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Dr. Christoph Peters

- Visiting Research Fellow at Cambridge Service Alliance
- Background in Business Informatics
- Ph.D. in Information Systems 2015
- Postdoctoral Researcher / Project Manager at:



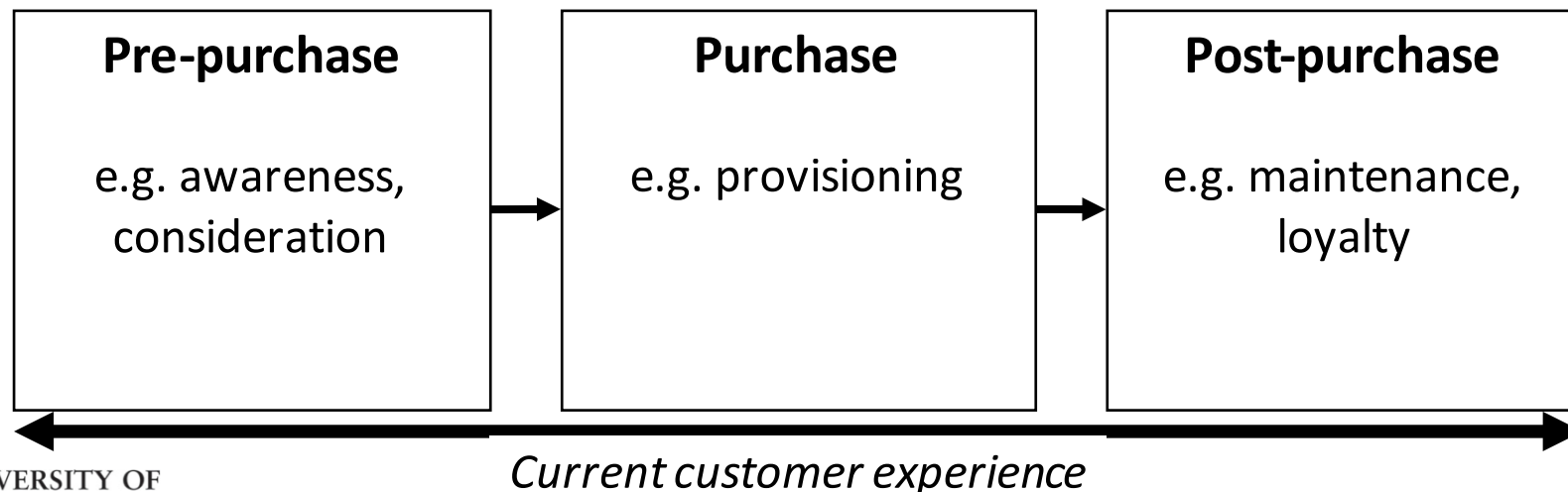
- 15+ years of experience in practice (SAP, startups, ...)
- International work experience and research collaborations: Australia, Sweden, Israel, USA, UK
- Practice-oriented Research focus: Service System Design and Management, Business Models, Digital Work, eHealth, Smart City, IT

Key Takeaways

- Artificial intelligence (AI) services have great potential and can support human intelligence (HI) and the decision-making processes
- AI services are not stand-alone, but part of overall service offerings / customer journeys (AI and HI)
→ hybrid intelligence
- Increasing speed and readiness for change
→ cannot be realized with rigid service structures
→ modular service structures are key
- 5 configurations of AI customer journeys
- Design the interplay and orchestration of services

Customer Journeys

- A customer's journey comprises all touchpoints of a company with this customer
- Very important:
 - seamless experience of the customer journey
 - channel integration
- Typical phases:



Artificial Intelligence Technologies

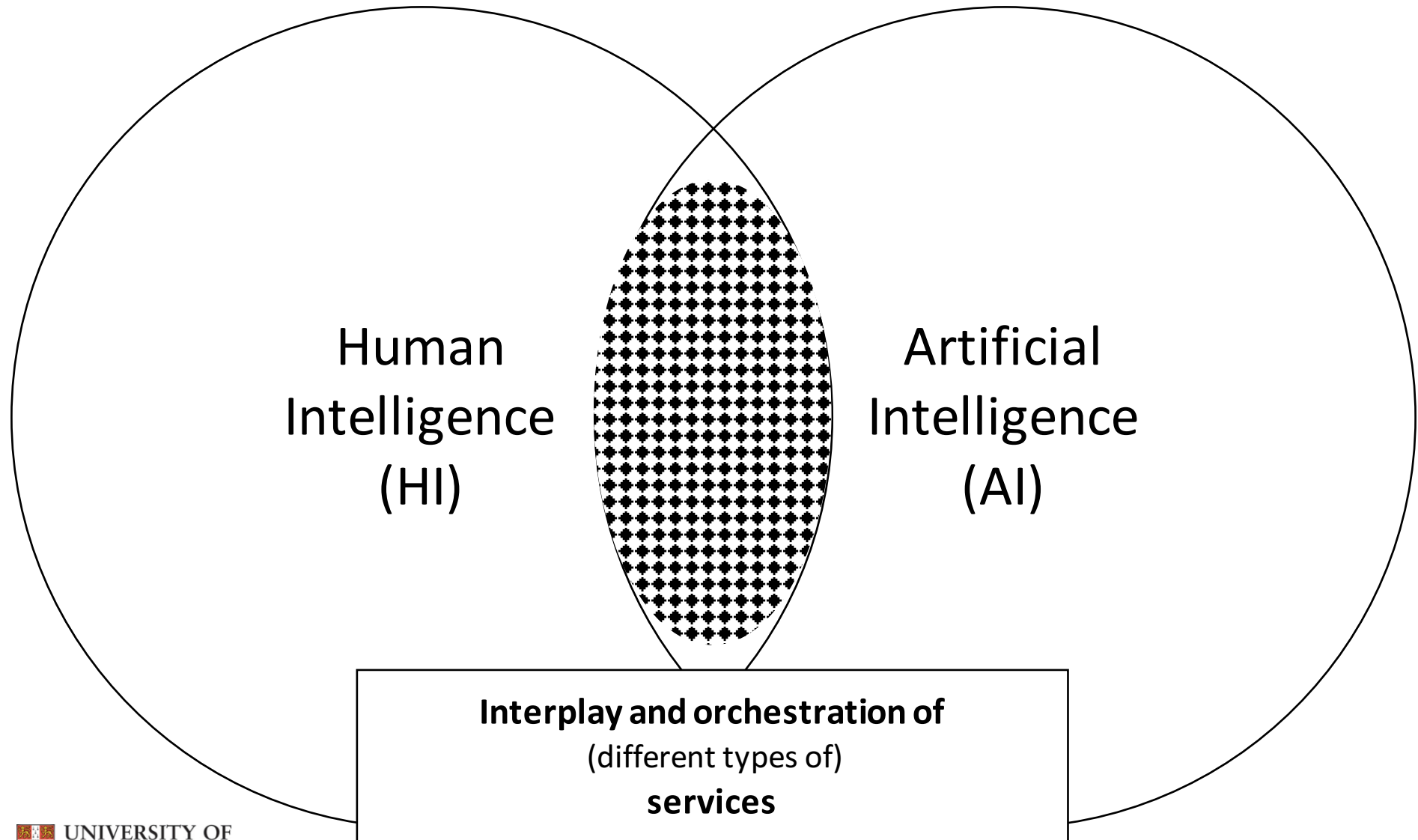
- By 2018, 62% of enterprises are expected to use AI
- AI market growth: \$8 bn (2016) → \$47 bn (2020)
- Top 3 AI technologies, according to Forrester:
 - 1) Natural Language Generation
 - 2) Speech Recognition
 - 3) Virtual Agents
- ...

Source: <https://www.forbes.com/sites/gilpress/2017/01/23/top-10-hot-artificial-intelligence-ai-technologies/#55b925361928>

Example

- At all touchpoints of the customer journey, informed decisions and empathic interactions are key
- Based on (real-time) data of current and historic customer interactions, AI enables you to improve the experience within the customer journey as it
 - suggests specific types of interactions and channels, e.g. AI-based chat agent vs. customer call vs. email offer, etc. or
 - gives recommendations regarding relevant content, e.g. mentioning key words or phrases

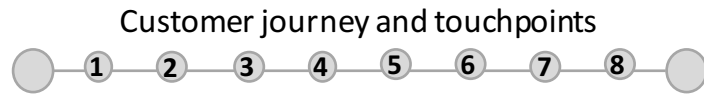
Hybrid Intelligence Services



Modular Service Structures

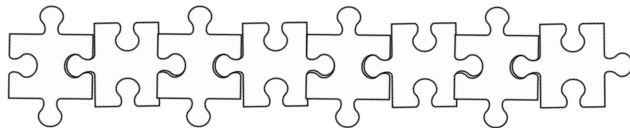
- Breaking down the overall services into modules
- All service modules
 - fulfill a dedicated function and
 - have defined interfaces
- Result of modularization:
 - Reuse of modules for several services
 - Ease of reconfiguration
 - Speed of (module-wide) innovation
- Overall:
 - plug & play characteristic of service modules

Five archetypical configurations of customer journeys



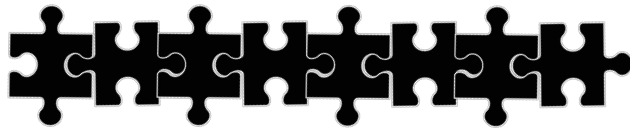
Customer journeys that...

I



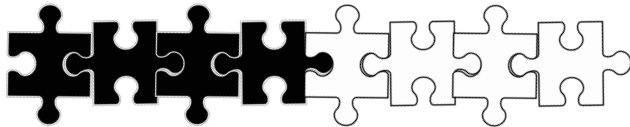
...are fully comprised of HI service modules

II



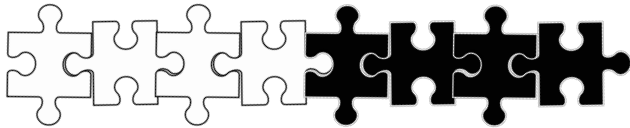
...are fully comprised of AI service modules

III



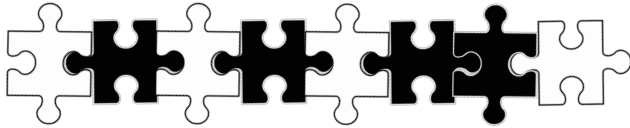
...start with AI service modules and follow-up with HI service modules

IV



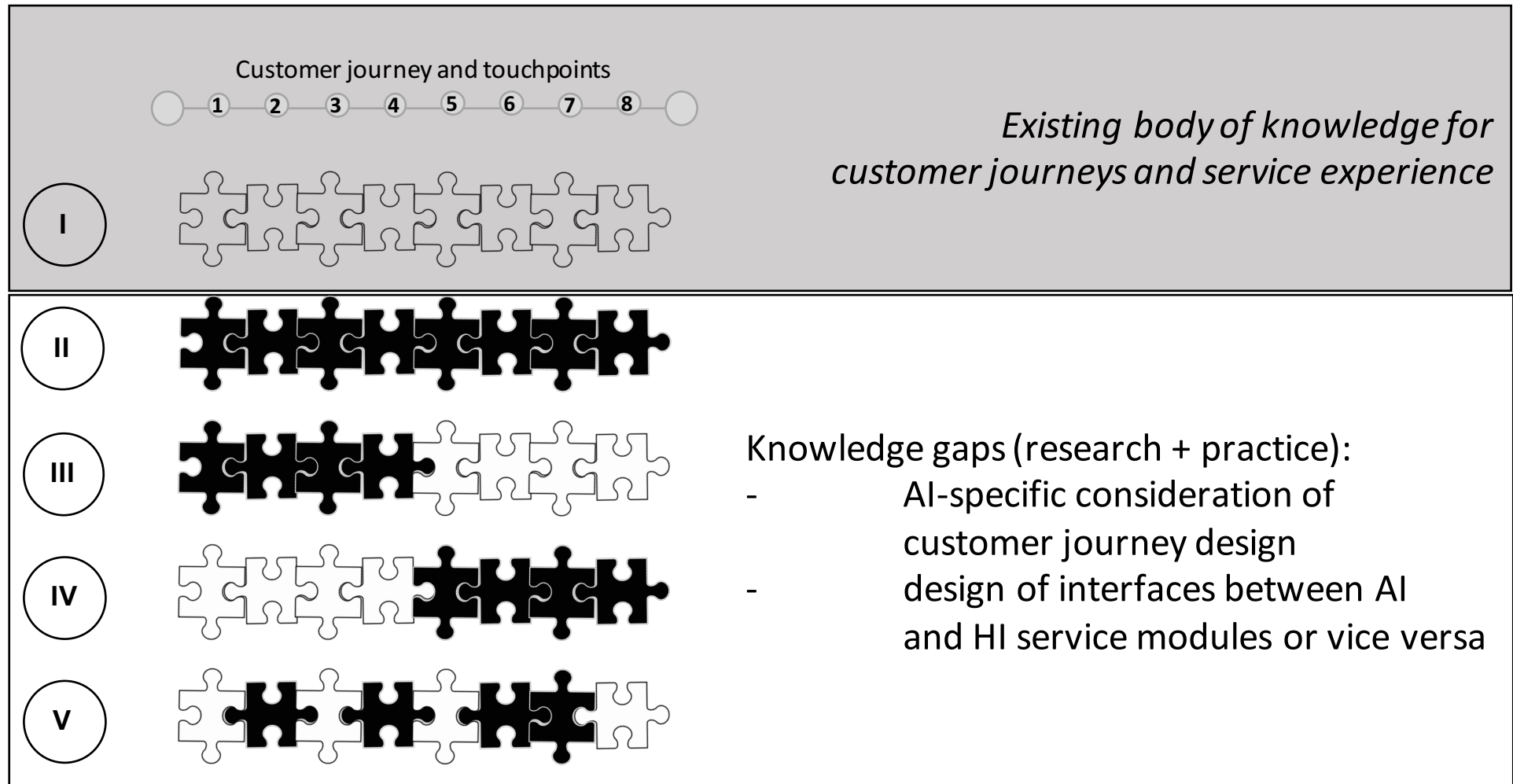
...start with HI service modules and follow-up with AI service modules

V



...are characterized by several changes between HI service modules and AI modules

Existing knowledge and Knowledge gaps



(Emerging) Business models

- Modular service structures allow for flexible reconfiguration of services and customer journeys
- Hybrid intelligence (comprising HI+AI) can significantly increase efficiency of service provision
- (Emerging) Business models can be tailored to the customers' needs / preferences (and willingness to pay) for
 - services during peak-times
 - 24/7 availability and support
 - interactions and support by human beings

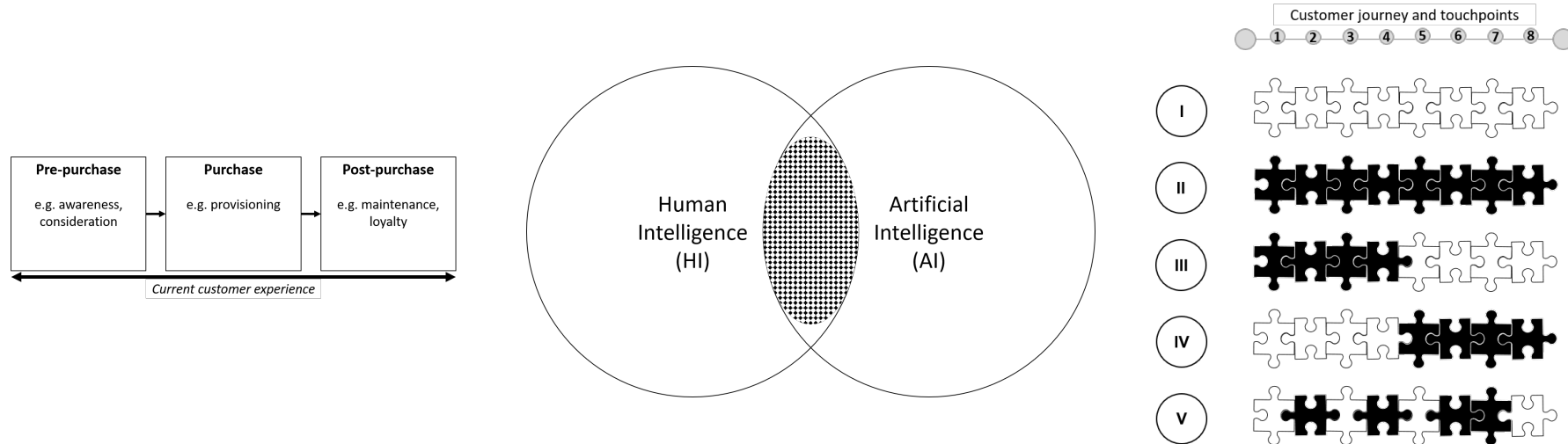
Future Research (Questions)

- How can interfaces be defined that foster the “plug & play” character of modular service structures?
- How does a systematic method look like that guides service providers through the flexible configuration of customer journeys?
- Which role does real-time data play?
- How can and should customer self-services and live data of customer interactions and experience be integrated in (self-) adaptable customer journeys?
- What is a good balance for hybrid intelligence services?
- Case studies designing and examining customer journeys for hybrid intelligence services.

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Thank you / Q&A



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