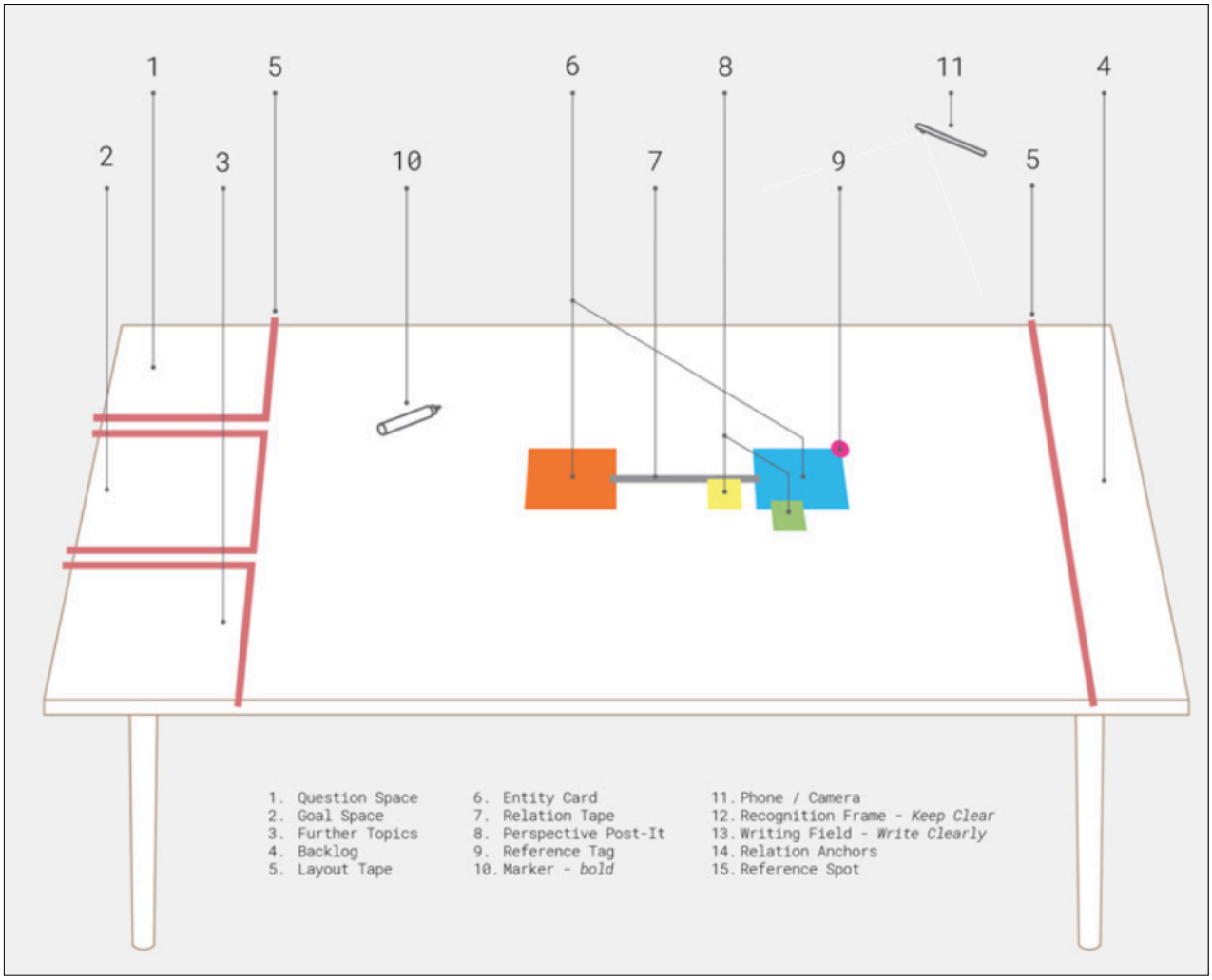

ADDM and Knowledge Hypercube

Internal Document 17.4.2020

HyperCube: Zohar Efroni, André Renz, Stefan Ullrich, Romy Hilbig, Bennet Etsiwah
ADDM: Diana Serbanescu, Stefan Ullrich, Romy Hilbig, Florian Butollo, Reinhard Messerschmidt

Weizenbaum-Institute, Berlin, 2017-2022.

HYPERCUBE

Short Copy, Paper Prototype:

The Weizenbaum Institut „Knowledge Tool“ supports interdisciplinary debates by providing a workshop methodology based on predefined instructions and prefabricated workshop materials with the aim to structure and record multi-perspective exploration and analysis.

Long Copy, Knowledge Tool:

The outlined semantic tool should make it possible to structure and document the conversation in the context of workshops and discussions between academics and provide impulses for these conversations from an existing and growing knowledge base.

For this purpose, the tool maps the results of workshops as graphs of entities and relationships in a database system. If an entity (e.g. "connected appliance") is added to a conversation, the system could directly suggest relationships and other entities that have already been used in other conversations about e.g. "connected appliances" - regardless of whether there is a person at the table who would have thought of this entity or not.

Entities as well as relationships can be annotated with subject domains/perspectives, so that it would also be possible to import a basic understanding of a situation based on a specific perspective from the collected Weizenbaum knowledge base into the current conversation. The interdisciplinary working process is supported in this low-threshold way, since ongoing conversations are repeatedly creatively irritated by possibly underrepresented perspectives. This prevents debates from remaining too subject-specific. On the other hand, every system-supported conversation contributes directly to the knowledge of the Weizenbaum Institute serialised in the database.

ADDM
AUTOMATION DEMYSTIFYING DISCOURSE MACHINE

*TL;*DR*:*

ADDM is a Serious Game played with participants at a conference. The game playfully conveys essential concepts of automation and digitalisation, and invites them to reflect on it. The automation discourse is too long to be read, but we provide a hands-on experience of some key concepts without words.

Long*:*

The Automation Demystifying Discourse Machine (ADDM) is an interactive installation where conference visitors become part of the machine, instructed by pen and (recycled) paper. The ADDM is an interactive installation for showing fundamental principles and concepts of industrial automatisation, such as international labour division, Taylorism, or co-operation. Furthermore, we will highlight the fundamental differences between Computer Power and Human Reason (Joseph Weizenbaum).

The ADDM wants to deconstruct key concepts of the Networked Society with a set of small »Serious Games« (Abt 1970). In one game, the participants are addressed like we would address a computer or a robot. In this way of communication, fundamental differences become clear, and at the same time the participants simulate automated processes in the style of a »Chinese Room« (Searle 1980). That means for example that the visitors will execute subtasks in a mechanical fashion, without having an awareness of the context and purpose of the entire task.
In another game, we will have a live action version of Weizenbaum‘s chat bot ELIZA, where participants will play the imitation game with each other: Who is speaking? Human or Machine?

Furthermore, the participants will also play Tic-Tac-Toe against a machine consisting of 304 matchboxes called MENACE (Machine Educable Noughts And Crosses Engine), developed by Donald Michie in the 1960s. Over time, MENACE »learns« to play Tic-Tac-Toe. This »learning« demystifies the basic principle behind software-based machine learning in a playful way.

The aim is to use the ADDM in interaction with the users to make the human-machine interaction in analogue space tangible and understandable. Indeed, the automation discourse is too long to be read, but maybe we provide a hands-on experience of some key concepts without words.

ACTION SHOTS