DIGITAL TRANSFORMATION

Why a city should foster its communities of practice… *

Dr. Katja Mayer
Science and Technology Studies, University of Vienna

*Insights based on WWTF study on opportunites of a Digital Humanism Initiative (March 2019)

WHY?

- Technology is society made durable. (Latour 1990)

- Technological transformation without adapted democratic institutions creates authoritarian systems. (Stalder 2019)

- Cities as broad enough, diverse, inclusive, ethical spaces and powerful actors

- Repression at home, specifically the use of computer based information systems as a means of social control. (Military Intelligence keeps data banks on civilians--including all of us.)

- Corporate racism (IBM plans to expand its South African market while the rate of unemployment among Third World people in the US continues to increase.)

- The present misuse vs. the constructive potential of computer technology (as applied to health, education, welfare, housing, ecology, and urban planning).

- The role of automation on the rising level of unemployment.

INTERRUPT 14

february, 1971

newsletter of
computer people for peace

Computer People for Peace
The Dolphin Center
137 West 14th Street
New York, N.Y. 10011

WWTF WIENER WISSENSCHAFTS-, FORSCHUNGS- UND TECHNOLOGIEFONDS

ROBÖXOTICA
Festival für Cocktail-Robotik

Roboexotica
- location
- ACRA 2019
- cocktailrobotics
- workshop

Schedule
- Nov 22, 2018
- Nov 23, 2018
- Nov 24, 2018
- Nov 25, 2018

exhibition
- exhibition 2018
- exhibition 2016
- exhibition 2015
- exhibition 2014
- exhibition 2013
- videos

contact us

Home ▸ Roboexotica

Welcome to Roboexotica!
Festival for Cocktailrobotics since 1999

Cheers! Roboexotica 2018 took place November 22-25, 2018 at Theater Nestroyhof Hamakom, Nestroyplatz 1 in Vienna's second district.

Until what seems almost recently, no attempts had been made to publicly discuss the role of Cocktail Robotics as an index for the integration of technological innovations into the human *Lebenswelt*, or to document the increasing occurrence of radical hedonism in man-machine communication. Roboexotica is an attempt to fill this vacuum. It is the first and, inevitably, the leading festival concerned with cocktail robotics world-wide. A micro mechanical change of paradigm in the age of borderless capital. Alan Turing would doubtless test this out.

http://roboexotica.at/

A big "Thank you" to our sponsors and partners:

WWTF

WIENER WISSENSCHAFTS-, FORSCHUNGS- UND TECHNOLOGIEFONDS

3

THE STUDY: ACTORS, THEMES AND INSTRUMENTS FOR A DIGITAL HUMANISM INITAITIVE IN VIENNA

Starting point:

- Digital Humanism as a broader movement with shared goals and existing structures does not exist in Vienna (and except for a few places nowhere else)

- However, there are many actors and (largely smaller) initiatives that might be understood within the umbrella of Digital Humanism in Vienna

Aim of the study:

- Identify a substantial part of these actors and initiatives

- Out of the many topics and themes that circulate in Vienna

  - Distil a limited number larger themes that are relevant to Vienna

  - Assess their potential for a Digital Humanism initiative

MA 23 - ECONOMY, LABOUR AND STATISTICS

The magistrates department 23 combines economic, labour market and innovation policy issues as well as statistical tasks. It can thus provide a sound basis for decisions on measures to be taken by the City or the State of Vienna and make a contribution to Vienna as a business location.

ASSIGNMENT OF CITY OF VIENNA MA23

- Tittle: Actors, instruments and themes for a Digital Humanism initiative in Vienna

- Authors: Michael Stampfer, Katja Mayer, Michael Strassnig, Simon Zingerle

- Scope:

  - AP1: Instruments for the curation of a Digital Humanism initiative in Vienna

  - AP2: Mapping of actors and institutions within the domains of a Digital Humanism Initiative

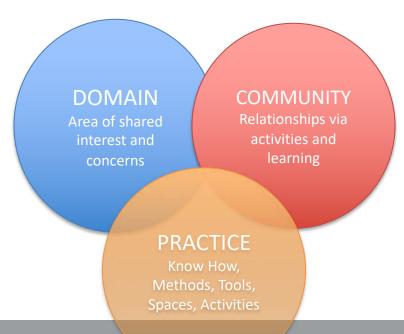 - AP3: Potential thematic orientations of the initiative.

STUDY DESIGN

- Interviews (23, with relevant stakeholders) → to collect thematic insights, but also to identify important actors.

- Literature and desk research in the context of Digital Humanism

- Content analytic approach to cluster the topics and actors identified
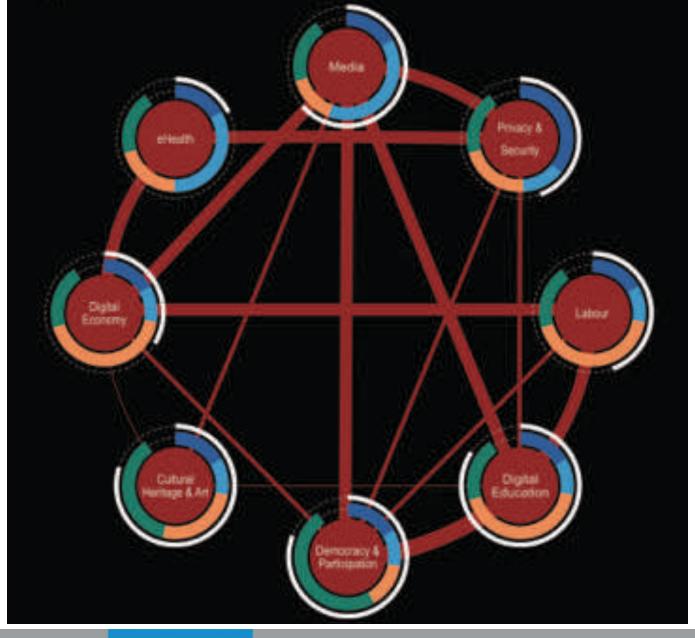
- Theory:
  Communities of practice

DOMAIN
Area of shared interest and concerns

COMMUNITY
Relationships via activities and learning

PRACTICE
Know How, Methods, Tools, Spaces, Activities

COMMUNITIES OF PRACTICE
AS AGENTS OF CHANGE

https://www.openminds.at/

WIENER WISSENSCHAFTS-,
FORSCHUNGS- UND TECHNOLOGIEFONDS

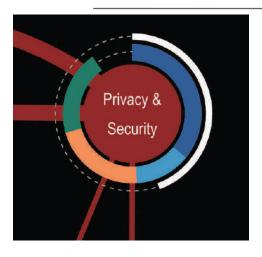# ACTORS AND INITIATIVES AS COMMUNITIES OF PRACTICE

- Many actor fields in Vienna rather „organised" as silos – very loose structures (if at all)

- Encounters of actors often not sustainable due to the lack of incentives or scarce funding (for smaller projects, critical security research, open source or data projects …)

- Actor fields defined as communities of practice (Wenger 1998): communities that are connected by common interests, goals and values → however, empirically the observed actors do not necessarily share all these

- Themes defined deductively – communities of practice defined inductively → a Digital Humanism initiative needs to entangle both in a meaningful way
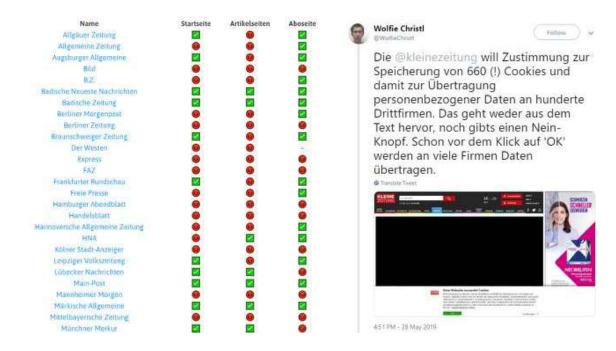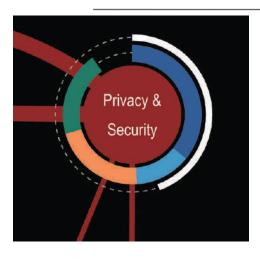
THEMES FOR DIGITAL HUMANISM INITIATIVE

Legend:
- Unique selling proposition
- Digital Commons
- Ethics and Regulation
- Research
- Inclusion

Themes: Media, Privacy & Security, eHealth, Labour, Digital Economy, Culture Heritage & Art, Democracy & Participation, Digital Education

WWTF WIENER WISSENSCHAFTS-, FORSCHUNGS- UND TECHNOLOGIEFONDS

THEME: PRIVACY AND SECURITY

- Huge global issue due to FB, Google et al. with regards to election fraud, data leaks, micro-targeting …

- GDPR attempt of EU to have a different approach → but in reality, it hasn't changed much

WIENER WISSENSCHAFTS-,
FORSCHUNGS- UND TECHNOLOGIEFONDS
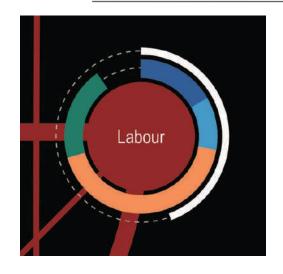
THEME: PRIVACY AND SECURITY

- **Strong potential:** Vienna has a <mark>strong and very well organised community of practice</mark> here – in particular civil society engagement; hybrids between activism and research

  - NOYB (strong international perspective), epicenter.works, quintessenz, Forum Informationsfreiheit …
  - European Union Agency for Fundamental Rights
  - Strong research groups around digital/information politics and "security" (AIT, TU Wien, SBA), some critical security studies

- **Challenges:**

  - Creating the right instruments to foster collaboration of engagement and research
  - Creating contact points and communication channels for digital human rights services
  - Making Vienna the international hub for knowledge transfer and exchance
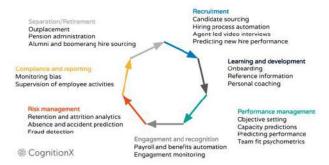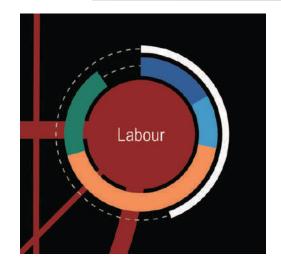
THEME: LABOUR

Digitalization is one of the fundamental **challenges** to the working environment

- Requirement of new skills (which also change rapidly)

- Automation via algorithms / AI / robotics → assumption that the skilled work force will be the most affected group

- Gig Economy, Clickworkers

- Employment and HR logics are already dominated by (often biased) imaginations of efficiency and wrong expectations of effect of Artificial intelligence or algorithmic decision systems

- Economies of scale:
  global players endanger
  local businesses

- On the other hand,
  large economic opportunities
  as well as potential positive
  overall effects on employment

How is AI being used in HR & Recruitment?

Separation/Retirement
Outplacement
Pension administration
Alumni and boomerang hire sourcing

Recruitment
Candidate sourcing
Hiring process automation
Agent-led video interviews
Predicting new hire performance

Compliance and reporting
Monitoring bias
Supervision of employee activities

Learning and development
Onboarding
Reference information
Personal coaching

Risk management
Retention and attrition analytics
Absence and accident prediction
Fraud detection

Performance management
Objective setting
Capacity predictions
Predicting performance
Team fit psychometrics

Engagement and recognition
Payroll and benefits automation
Engagement monitoring

CognitionX

WWTF
WIENER WISSENSCHAFTS-,
FORSCHUNGS- UND TECHNOLOGIEFONDS

THEME: LABOUR

- Engagement with labour in the digital age is crucial:
  - Scientific research and sharing of non-sensitive data
  - Development of regulation approaches and social security models,
  - Education of future work force and thus being relevant to business
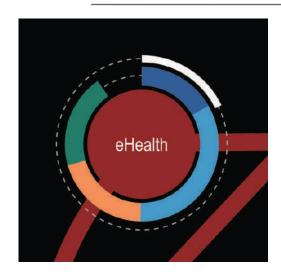 - Skills development and capacity building

Opportunities:

- Vienna has a strong base in knowledge intensive services
- Vienna has also a strong tradition in workers' right politics and a internationally recognised legal school devoted to these topics
- The Austrian Chamber of Labour with its headquarter in Vienna is investing in Labour 4.0 initiatives.

Challenges:

- Communities of practice rather fragmented
- City as a role model: Constituting expert panels for consultation of City Labour policy
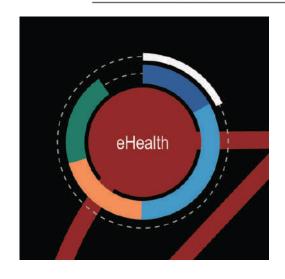
THEME: E-HEALTH

Vienna has a distinct health economy with public authorities as central actors (but increasing importance of the private domain)

Digital technologies are increasingly important …

- Electronic health records and optimisation of public health

- Digital knowledge management systems that support medical or care decision making

- Machine learning in the life sciences to deal with big data but often impartial data: problem of bias, healthcare or healthtech training data not diverse enough, …

- Telemedicine and ambient assistant living

- Smart technologies and mobile applications (Fitness and Health tracking)

- New types of sharing medical data for research following privacy by design, data clearing models, sandboxes, synthetic data,

public health needs real data

https://medium.com/@richardameyer/the-digital-health-mirage-ae2a9afb069b

THEME: E-HEALTH

Opportunities: Health services are crucial for cities in global competition

- Data as a new resource to improve health care: big data approaches; personalized medicine; bioinformatics and AI → <mark>strong research actors in Vienna</mark>

- Inclusion of SSH in terms of an interdisciplinary public health approach very weak in Austria

- City of Vienna has a lot of experience in public health and design processes involving multiple stakeholders

- <mark>Strong patient organisations</mark>

Challenges:

- The actor landscape is too vast to monitor

- It will be important to identify promising subthemes and their resp. communities of practice

- Learnings from prior experiences need to be documented and discussed

Evolving health data ecosystem

DH COMMUNITIES OF PRACTICE

- Digital Humanities
- Open science / open source
- Open government
- „Netzpolitik" and digital civil rights
- Critical research on big data / algorithms and AI / Ethics and digitalization
- Blockchain
- Security and Surveillance Research
- Public Health
- Digital Literacy
- Journalism
- Serious Gaming / eSports

WHY VIENNA SHOULD FOSTER AND SUPPORT ITS COMMUNITIES OF PRACTICE

- A city constantly needs to learn and translate

- **Practice** and **community** is the best grain size at which to describe **knowledge in action**.

- Communities of practice the right frame for planning, co-creation and engagement

- City planning and social governance rely on community support

- City and communities need to experiment to find the right formats for exchange

DOMAIN
Area of shared interest and concerns

COMMUNITY
Relationships via activities and learning

PRACTICE
Know How, Methods, Tools, Spaces, Activities

WHY VIENNA SHOULD FOSTER AND SUPPORT ITS COMMUNITIES OF PRACTICE

To become an internationally recognized place for alternatives to the digital mainstream, the study suggests to strategically focus on 2 aims.

- Vienna needs to become famous with its **distinct narrative** combining socio-technological innovation with well being.

- **Vienna has to recognise that it is already hosting a pool of ideas and people that work on these alternatives**; these ideas often exists on the fringe of the system and need to be cultivated as such or even mainstreamed

→ this requires going beyond providing information to network. It also needs resources and sustainable instruments to foster already existing communities of practice as well as enable the emergence of new ones. It will also need dedicated spaces and roles!

<mark>HOW</mark> SHOULD VIENNA FOSTER ITS COMMUNITIES OF PRACTICE

There are many necessary steps, the study concludes with two concrete measures

1. Research funding programme "Digital Humanism"

    -   To build interdisciplinary research areas where ICT works together with SSH; the knowledge produced should ask very fundamental questions but at the same time be open to application and to transfers of outcomes society and economy

2. Curated funding programme

    -   To put Vienna on the digital world map by creating new incentives and formats in which innovative research, arts, civil society, public administration and the public can interact on issues of digital humanism

DIGITAL HUMANISM IN VIENNA – FIRST STEPS

Pilot of new funding format at MA7:

The Cultural Department of the City of Vienna has an open
project call under the title "Digital Humanism". The call is aimed at scientists in the
humanities, social sciences and cultural sciences and information and
communication technologies.

Research projects are funded up to a maximum of 40,000 euros each. The total
amount of the call is 320,000 euros. The duration of the projects is limited to 12
months. (Deadline for submission August 20, 2019)

Methodological breadth and transdisciplinarity are explicitly desired.

The project projects should preferably involve participants from both scientific fields
("twinning") and/or have a pilot character for possible larger project projects.

Learnings from this pilot will have to be fed into design of 2 new funding
programmes: research funding and curated funding programme

https://www.wien.gv.at/amtshelfer/kultur/projekte/subventionen/digitaler-humanismus.html

WIENER WISSENSCHAFTS-,
FORSCHUNGS- UND TECHNOLOGIEFONDS

Thank you for your attention!

Email: Katja.Mayer@univie.ac.at
Twitter: @katja_mat

Michael Stampfer
Michael Strassnig
Simon Zingerle
Email: office@wwtf.at
Twitter: @WWTF