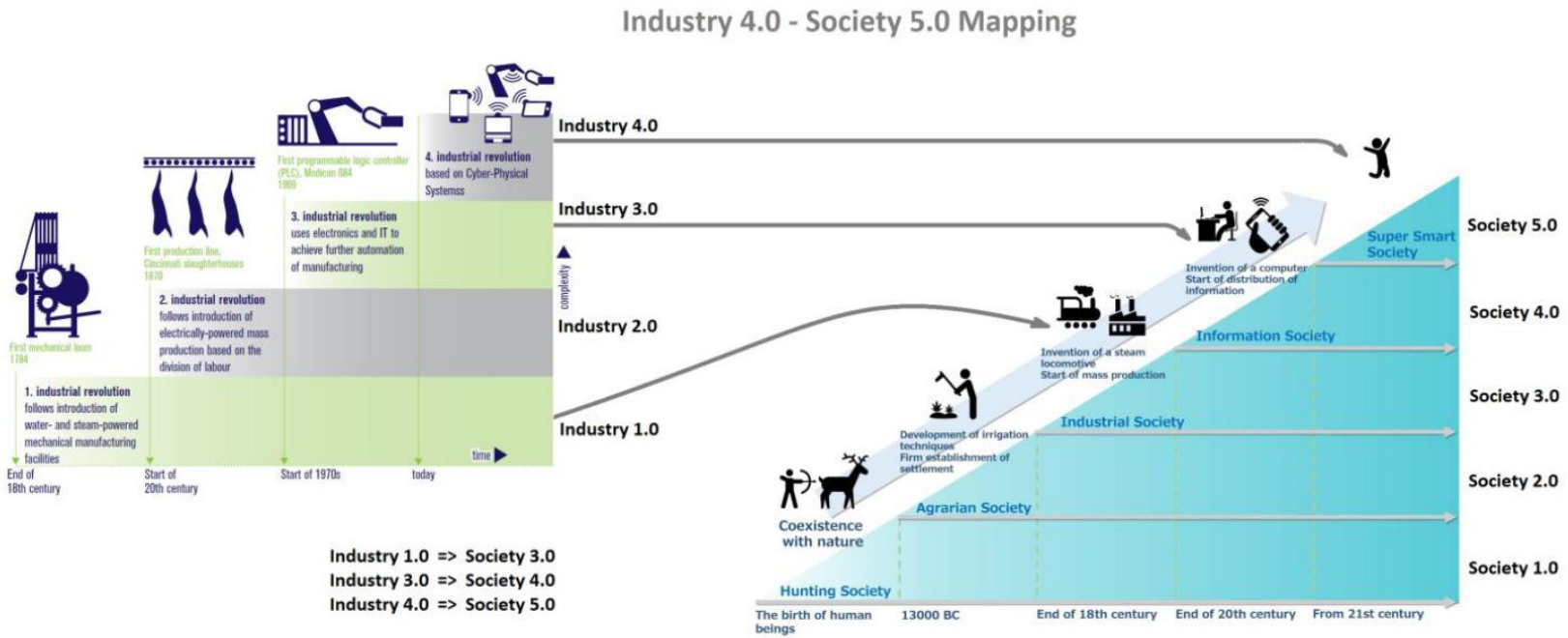
Dia de la Llibertat del Maquinari

Espai Fontana

Barcelona, 26/abr/2025

Els models de la Indústria 4.0 i Societat 5.0

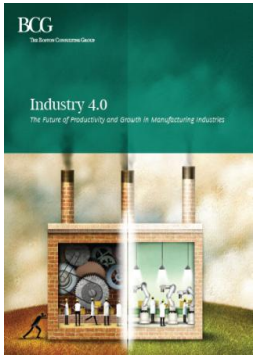


Documents de referència

1

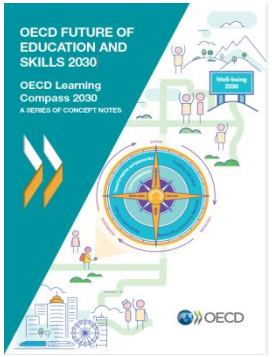
2

3

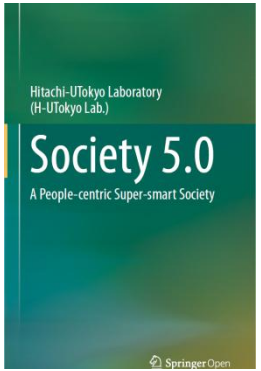


4

5



6



1. https://www.keidanren.or.jp/en/policy/2018/095.html
2. https://en.acatech.de/publication/recommendations-for-implementing-the-strategic-initiative-industrie-4-0-final-report-of-the-industrie-4-0-working-group
3. https://www.bcg.com/publications/2015/engineered_products_project_business_industry_4_future_productivity_growth_manufacturing_industries
4. https://op.europa.eu/en/publication-detail/-/publication/468a892a-5097-11eb-b59f-01aa75ed71a1/
5. https://www.oecd.org/en/about/projects/future-of-education-and-skills-2030.html
6. https://link.springer.com/book/10.1007/978-981-15-2989-4

Educació i Tecnologia

The race between technology and education

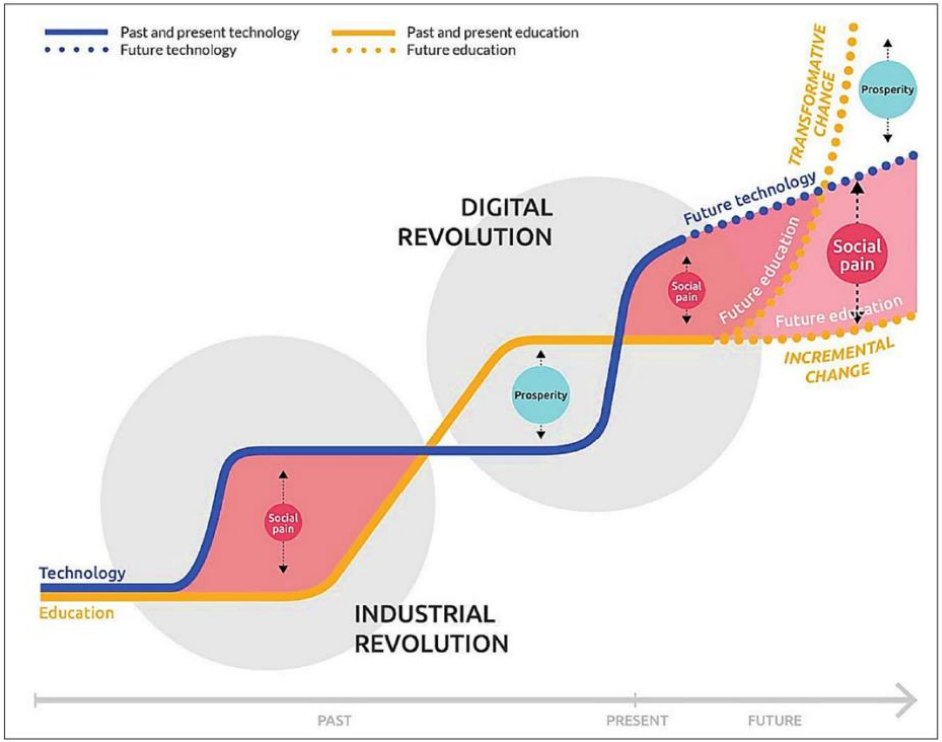
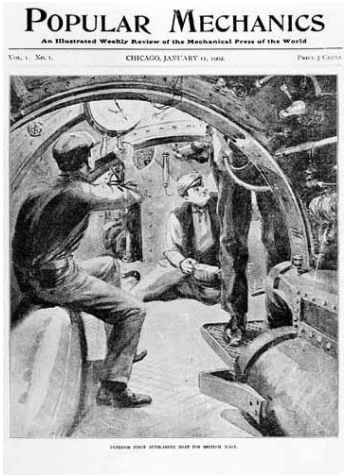


Figure 1. Social pain and prosperity with the industrial and digital revolutions (adapted from OECD [4], which was inspired by Goldin and Katz [8]; license: CC BY-NCSA 3.0 IGO [9]).

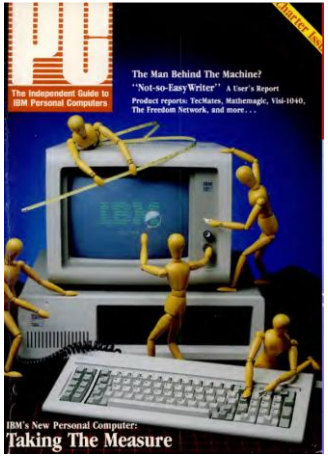
Revolucions industrials i DIY



Chicago 1902

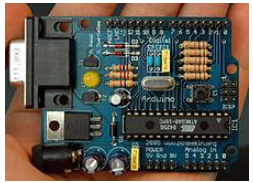
Liverpool 1907

Chicago 1975

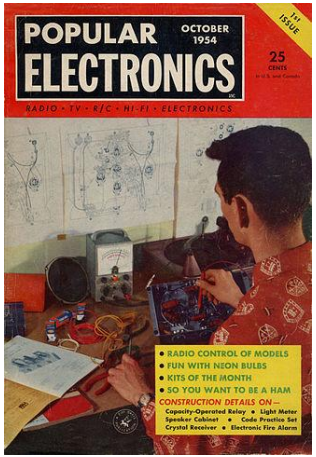


San Francisco 1982

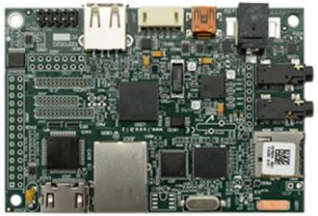
San Francisco 2005



Ivrea 2008



Chicago 1954

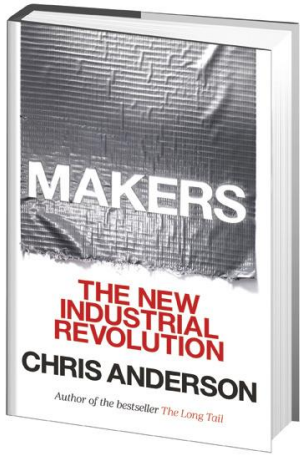


Valldoreix 2009
(somdevices.com)

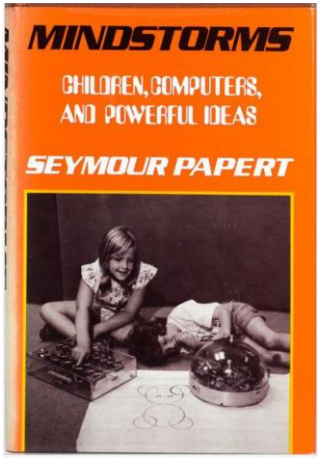
Cambridge 2012

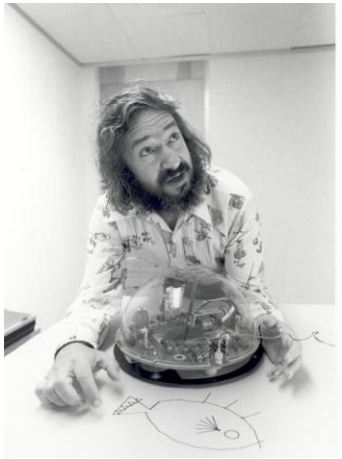
Xina 2016

Makers i micromons



Chris Anderson

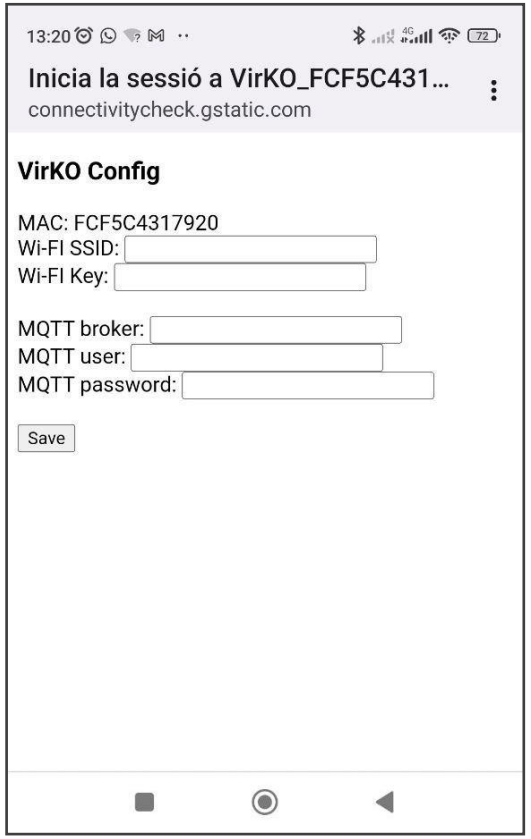




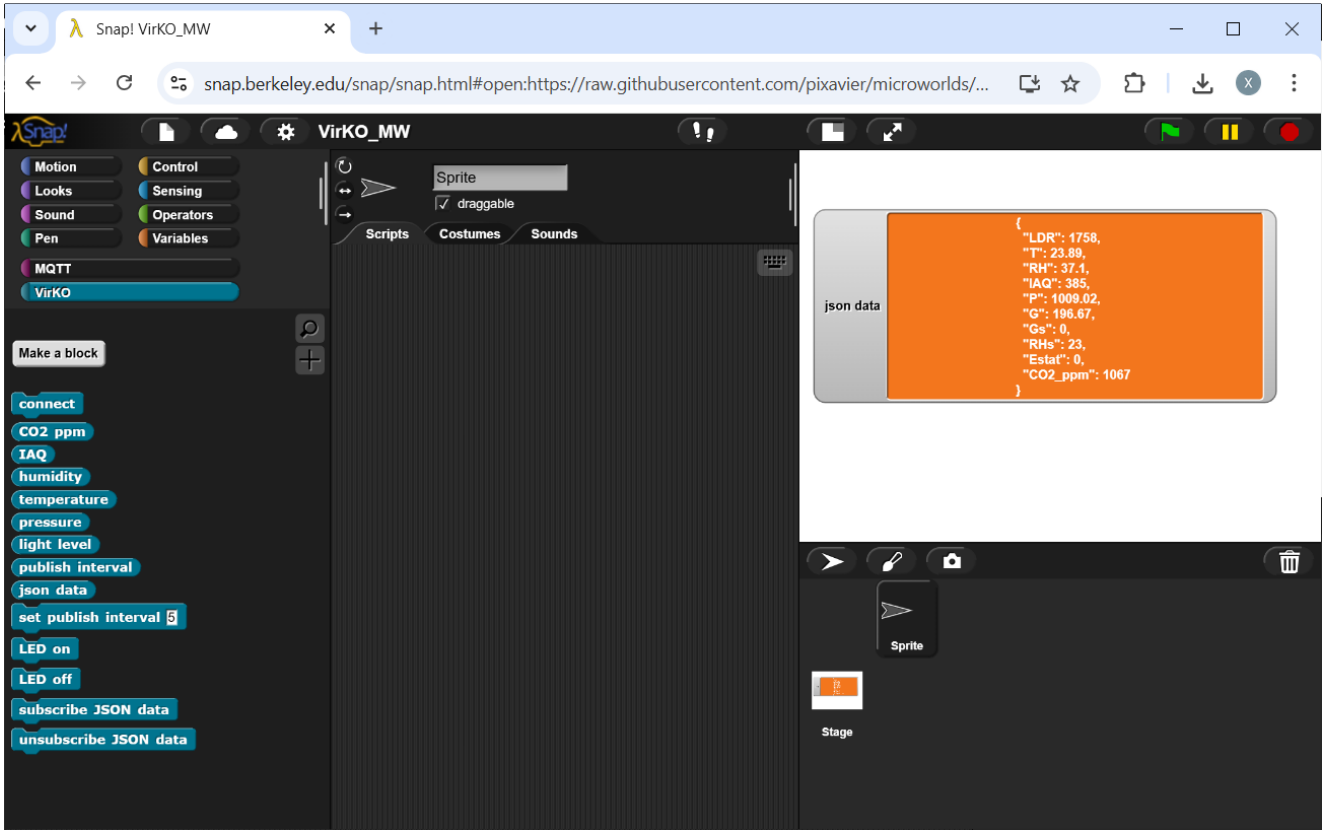
Seymour Papert

VirKO


CO2
1102 ppm
IAQ: 10 / T: 28.98 °C
64
VirKO
VCC
GND
SCL
SDA
SDO
CS
SenseAir
S8
074A2DCD
somsensors.com


13:20
Inicia la sessió a VirKO_FCF5C431...
connectivitycheck.gstatic.com
VirKO Config
MAC: FCF5C4317920
Wi-FI SSID:
Wi-FI Key:
MQTT broker:
MQTT user:
MQTT password:
Save

Micromón VirKO amb Snap*!*



Personal Agent Space

CENTRIC 2012 : The Fifth International Conference on Advances in Human-oriented and Personalized Mechanisms, Technologies, and Services

An Approach to Developing an Agent Space to Support Users' Activities

Kenji Sugawara
Faculty of Computer and Information Network Science
Chiba Institute of Technology
Narashino, Japan
suga@net.it-chiba.ac.jp

Jean-Paul A. Barthès
UMR CNRS Heudiasyc,
Université de Technologie de Compiègne
Compiègne, France
barthes@utc.fr

Abstract— **Information and communication technology and ubiquitous technology allowed developing smart services for supporting users in their daily life. However, users experience great difficulties for finding rapidly the information they need when they need it, essentially because the current information systems seems to be based on a system-centric approach. In this paper, we discuss a new approach centered on users' requests, using an Agent Space that contains Personal Agents, Social Agents and a Mediation Agent. We distinguish between Real Space, the space in which the user lives and Digital Space, the space containing social information. A personal agent interacts with a user to recognize the user's activity in real life and a social agent interacts with objects in Real Space and with social information data in Digital Space. A Mediation Agent saves social information according to its role and distributes it to all interested agents. The agents are designed to run on the OMAS platform, a distributed multi-agent platform.**

Keyword-multi-agent system; personal assistant; agent platform; agent space.

I. INTRODUCTION

The growth of Information and Communication Technology enables us to receive various kinds of important opportunities they could exploit if they had the skill to work with complex information systems.

The agent-based technology is one of the possible solutions for distributing information from the DS to an unskilled user in the RS [8]. An Agent Space (AS), built as a well-designed collection of agents, can be a platform to meet users' requests in the RS using proper social information from the DS [6]. The users' requests change continuously following their activities in the society. Similarly, the contents and organization of the social information in the DS change according to the changes in the society in the RS. Thus, meeting users' requests with social information can be very difficult for conventional static algorithms when they try to solve the problem autonomously. This is a reason why users need skills to handle the computer and the network efficiently. Moreover, skilled users waste their time watching web sites and data in the DS.

Because current information systems have been designed using a system-centric approach generally so far, users have problems finding information rapidly. Our approach on the other hand is user-centric and we design an Agent Space that is deployed between the RS and the DS in order for agents to match users' requests with proper social information

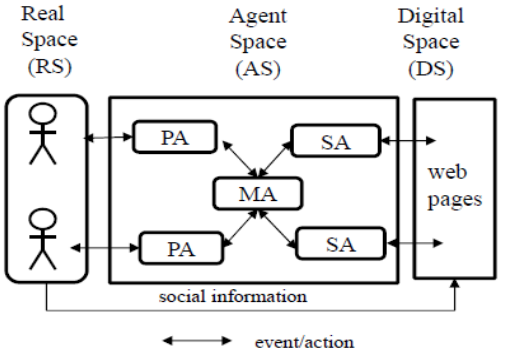


Figure 1. Agent Space Interacting with RS and DS

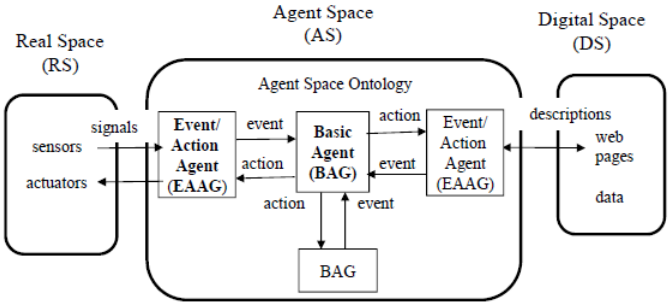
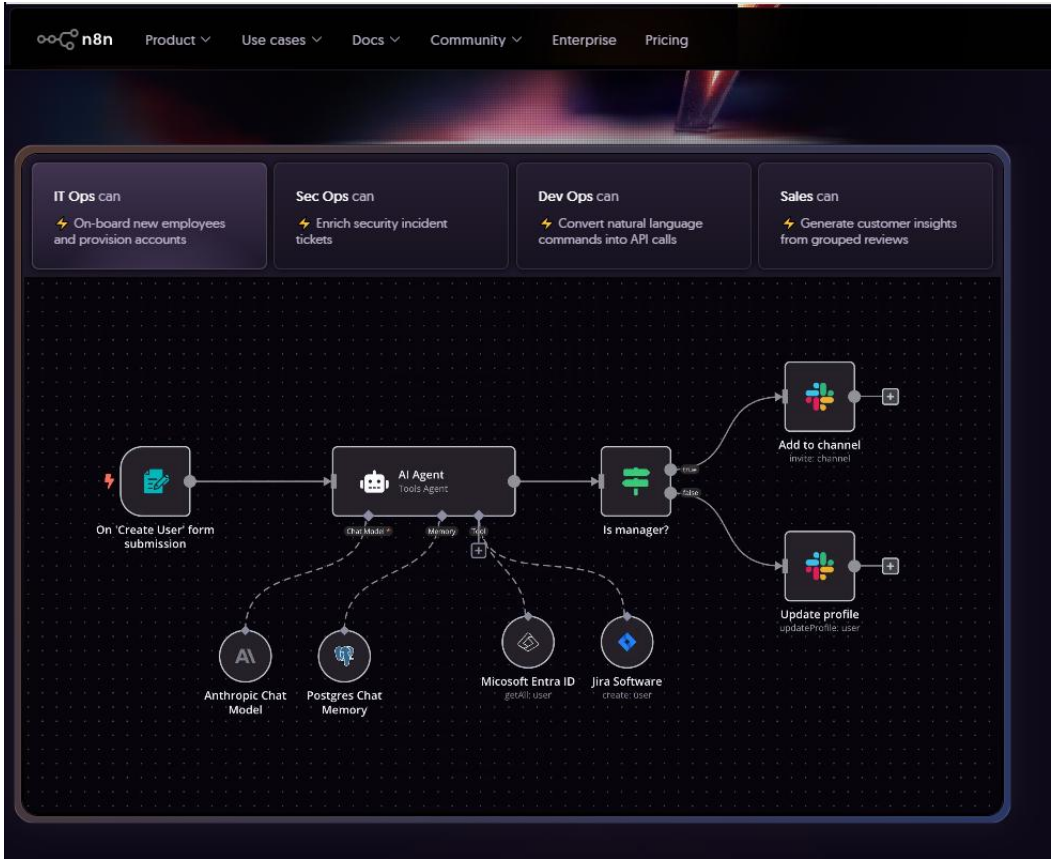
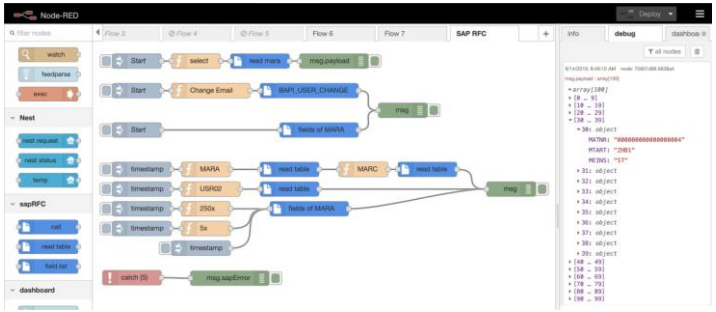


Figure 2. Basic Agent and Event/Action Agent

Popularització d'espais personals d'agents





Recursos VirKO

https://www.binefa.com/index.php/Diada_de_la_Llibertat_del_Maquinari_(Edici%C3%B3_2021)

https://wiki.binefa.cat/index.php/Testing_VirKO_board

https://www.digikey.es/es/products/detail/senseair/004-1-0100/22523401

https://www.amazon.es/temperatura-humedad-presi%C3%B3n-BME-680-desarrollo/dp/B08RN2Q9F9

https://www.amazon.es/dp/B07DJ5RHFV/ref=sspa_dk_detail_1

Treballs finals fets per alumnes:

https://github.com/lahoz97/ProjecteDAM

https://github.com/jp0431/Projecte_Final_2nDAM

Gràcies

Xavier Pi

xpi@enginyers.net