



MICSECS 2020

Digitalization of Digital Media: A Shift in Human-Device Interaction That Will Reshape the Concept of Media Industry

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About GS Labs

- Software for delivery, protection, and monetization of digital products
- Scalable software platform that integrates new digital services and devices to get access to media services and TV viewing
- Content access equipment
- Mobile services running in a hybrid digital environment
- Solutions for household digitization



Introduction

- Requirements engineering is a critical factor in software or systems development.
- Digitalization is a trend and common requirement.
- Do we have common or at least some understanding of what is the meaning of the word ?

Agenda

- Digitalization. Definition #1
- Digitalization. Definition #2
- Digitalization. Definition #3
- Impact on media industry

Definition of Digitalization

Gartner Glossary

[Digitalization](#)

Digitalization is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business.

Wikipedia

[Digital transformation](#)

The academic discussion surrounding **digitalization** has been described as problematic as no clear definition of the phenomena has been previously developed. A common misconception is that digitalization essentially means the usage of more IT, in order to enable and take advantage of digital technology and data. This early definition, however, has largely been replaced by the above definition, now linked to holistic views on business and social change, horizontal organizational and business development, as well as IT

Forbes

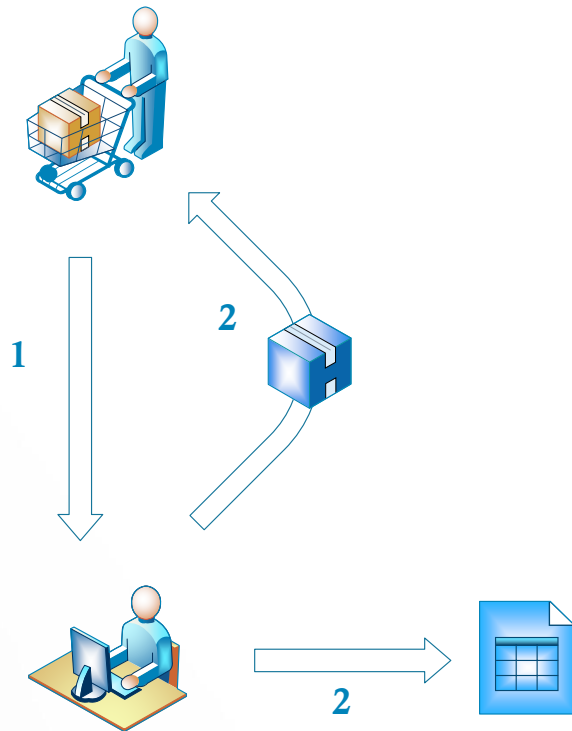
[Digitization, Digitalization, And Digital Transformation](#)

Unlike digitization, **digitalization** doesn't have a single, clear definition.

General public and professional communities widely use the term “digitalization” in a broad sense, that is, without any clear concept.

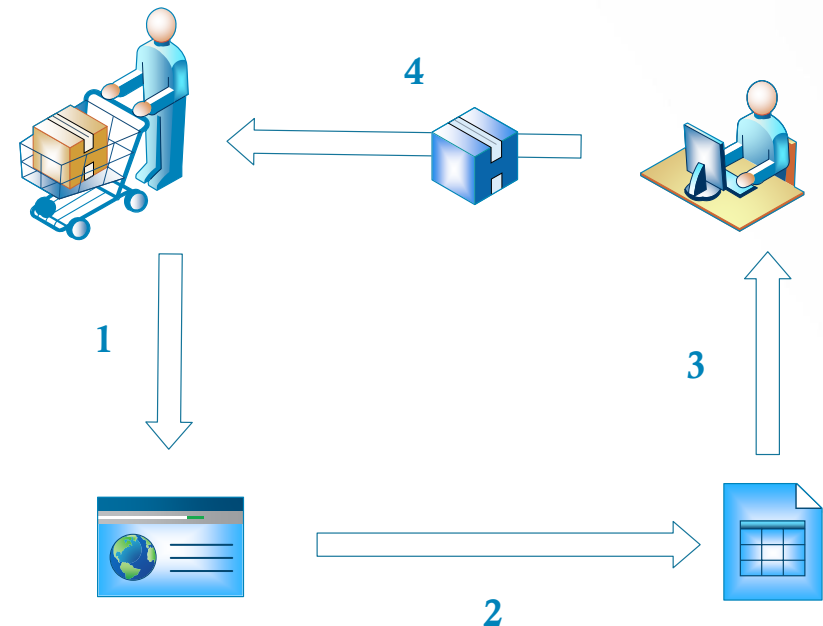
A good commercial term, especially for suppressing the will and mind of customers - "Haven't you done your digitalization yet? This is your chance"

Traditional vs digitalized processes



In a traditional process, an action associated with real goods or services precedes an operation in an information system

In a digitalized process, the sequence of actions is the opposite - actions in information systems precede or initiate operations in the real world.

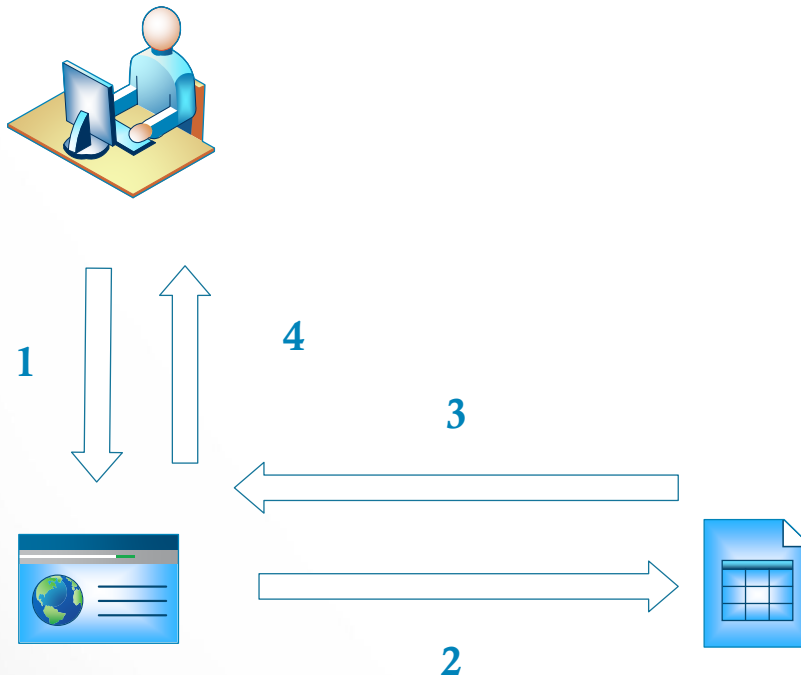


Digitalization. Definition #2

- A technology-induced change in organizational processes, in which actions in information systems begin to precede and/or control the movement of physical goods and the provision of services
- Технологически обусловленное изменение организационных процессов, при котором действия в информационных системах начинают предшествовать и/или управлять движением физических товаров и предоставление услуг.
- This definition is derived from 2010s works devoted to the analysis of information flows in CRM and billing systems.
I cannot refer to an exact source of this definition, it was in the air.
One article that came close. I refer just because it referred my article that although came close
Щагин И.В., "Исследование особенностей информационных потоков логистических систем на телекоммуникационных предприятиях" Известия СПбГЭУ, 2012. № 5. С. 36-41

Shortcomings

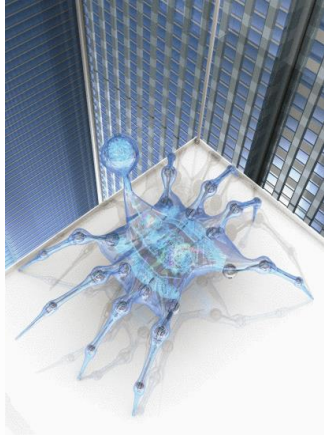
A definition that refers to physical goods or services is not really appropriate for industries that are digital in nature, such as communications or the media, including modern television.



No space for further digitalization

A step towards cyborgs

Not here yet



This nice device was predicted to become a carrier of digitized human identity.

R. Hanson, "Economics of the singularity," in IEEE Spectrum, vol. 45, no. 6, pp. 45-50, June 2008.

But here



We are still in the real world, but for more and more of us the interfaces to it are digitized. the people from the next generation consider the gadget is an extension of their hand, body, soul or identity

Neither here



Digitalization. Definition #3

Digitalization is the transformation of user experience towards control of converged realm from new environment created by portable devices, voice assistants and emotional interfaces.

Traditional:

Pull the handle to open the fridge

Digitalized:

Ask Alice to open the fridge

The next step:

Wink the fridge to open it up

Media Industry Digitalization “as is”

Focus on presentation device rather than control or social impact

Traditional (aka lagging)



Digital, promising



Industry research shows that there is very little correlation between presentation device and business success

For example *Capgemini report “OTT Streaming Wars: Raise or Fold” of November 2020*

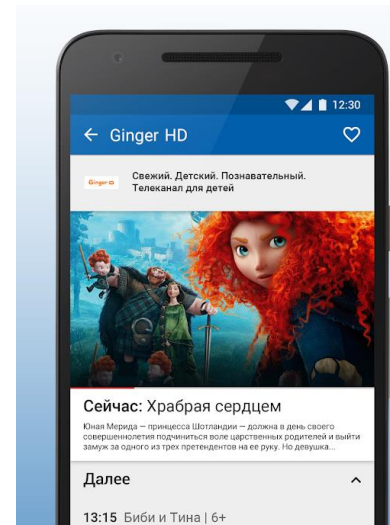
Media Industry Digitalization “to be”

Focus on control and social impact rather than presentation

Traditional



Digital



The people from the next generation consider the gadget is an extension of their hand, body, soul or identity the conclusion would be that external tv set with old-fashioned remote control is merely unusable.

Conclusions

We are facing an engineering challenge that may drive a shift in human-device interaction and shaping the media and other industries - the actions taken in the gadget will transparently control big screen and eventually other home appliances.

Thank you !

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