CONTEXT-ADAPTIVE TECHNOLOGY FOR THE EFFICIENT ALLOCATION OF HUMAN ATTENTION

Christine Bauer

Attention is a scarce resource.

"What information consumes is rather obvious: it consumes the attention of its recipients." (Simon, 1971)

WWW, corporate networks, mobile devices,… "continually wash tsunamis of information onto our desktops" (Davenport & Beck, 2000)

"…need to allocate that attention efficiently among the overabundance of information sources…" (Simon, 1971)

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Intelligent system may be a remedy.

intelligent systems allow filtering information

intelligent systems allow targeting information (more) accurately

intelligent systems may catch or withdraw human attention

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# Intelligent systems have to adapt to context.

The main objectives are to investigate...

Which type of context information should be considered by context-adaptive services?

In which ways should systems ideally adapt to context?

What are sustainable business models for context-adaptive services?

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The process of context adaptivity has 4 phases.
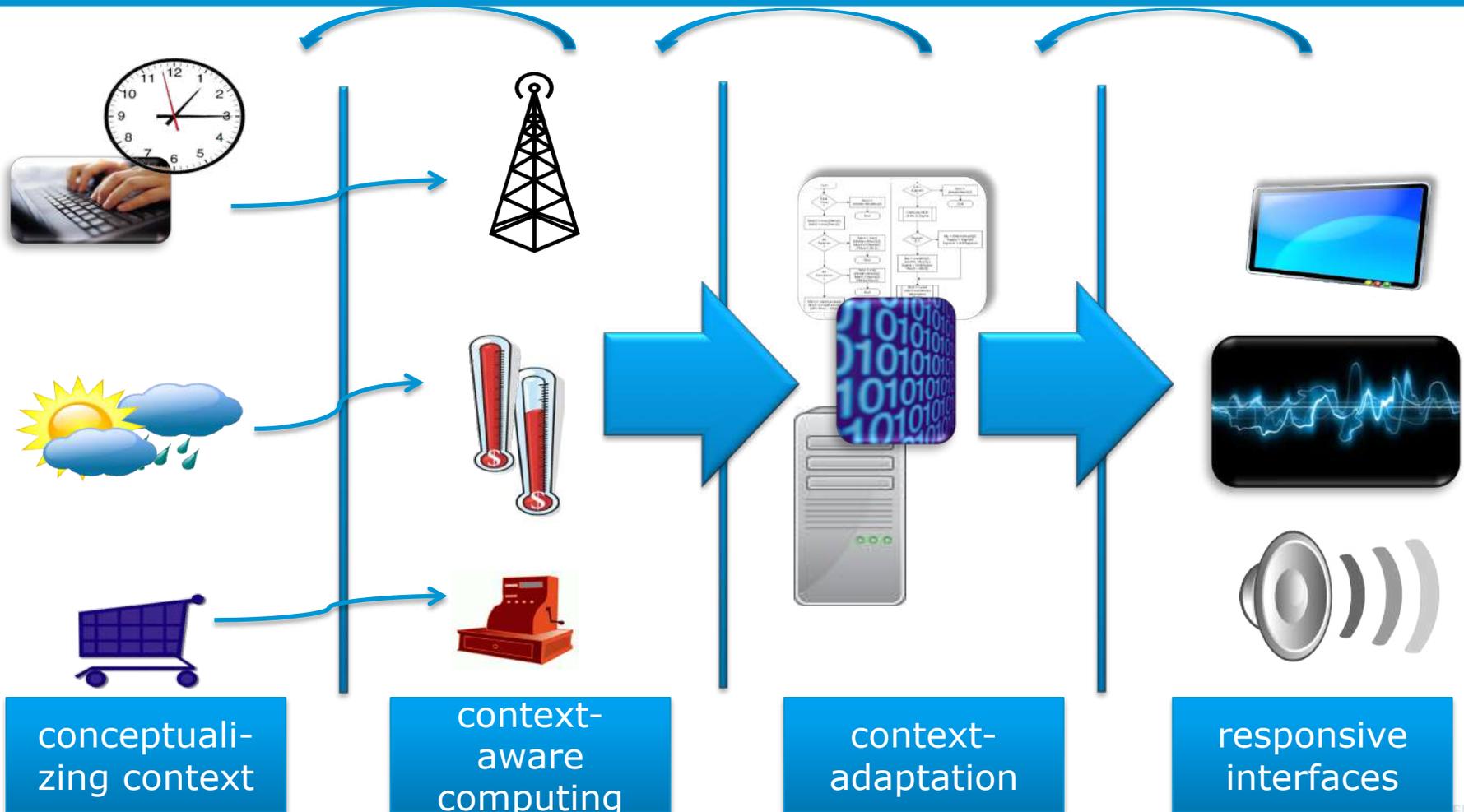
conceptuali-zing context

context-aware computing

context-adaptation

responsive interfaces

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EQUIS
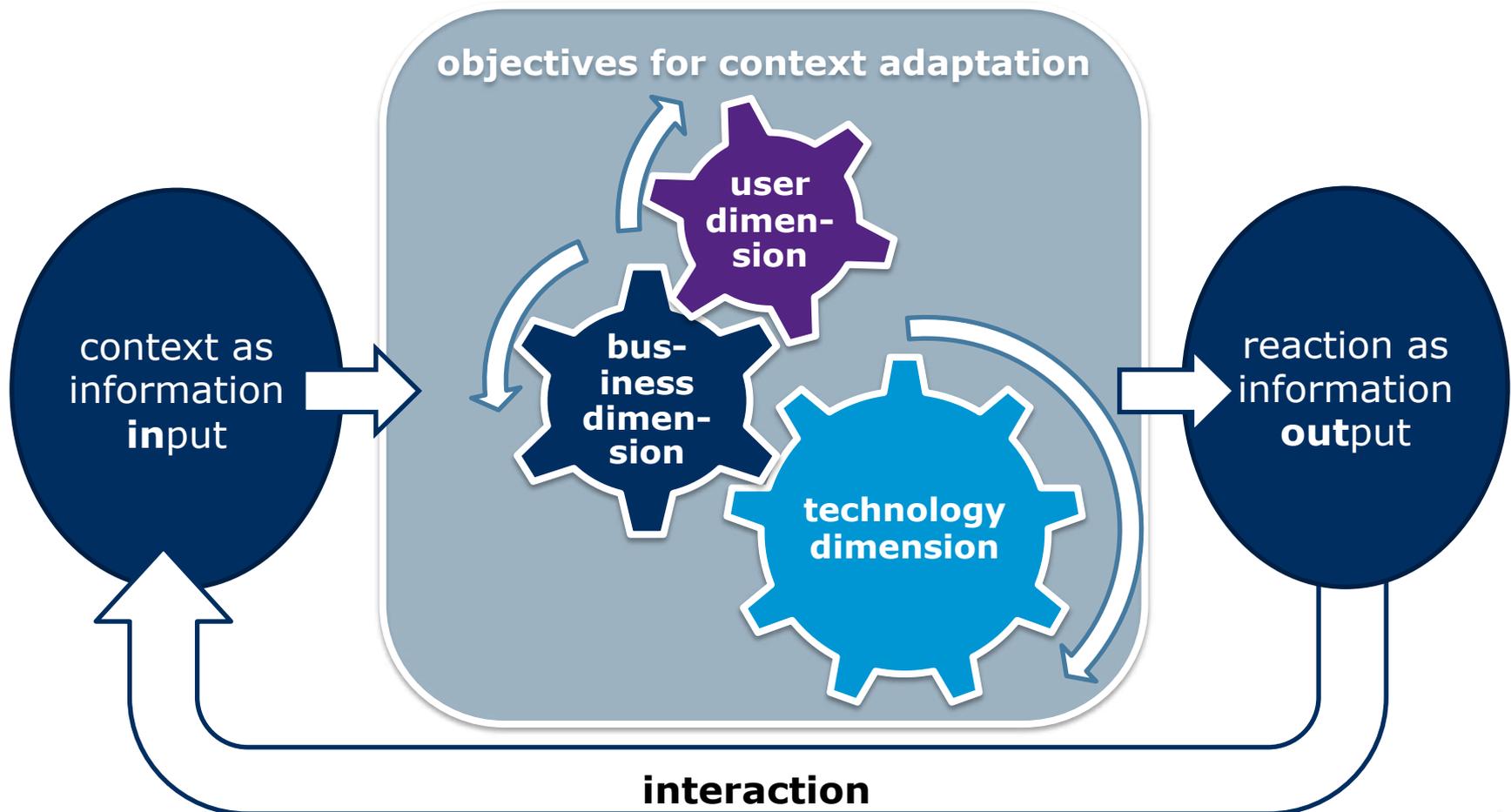
# Consider the whole picture.

advancement of context-adaptive technology and services is relevant for all market players

consider the whole picture of concerned parties!

The chain of context adaptation

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I will approach research alongside the process of context adaptivity…
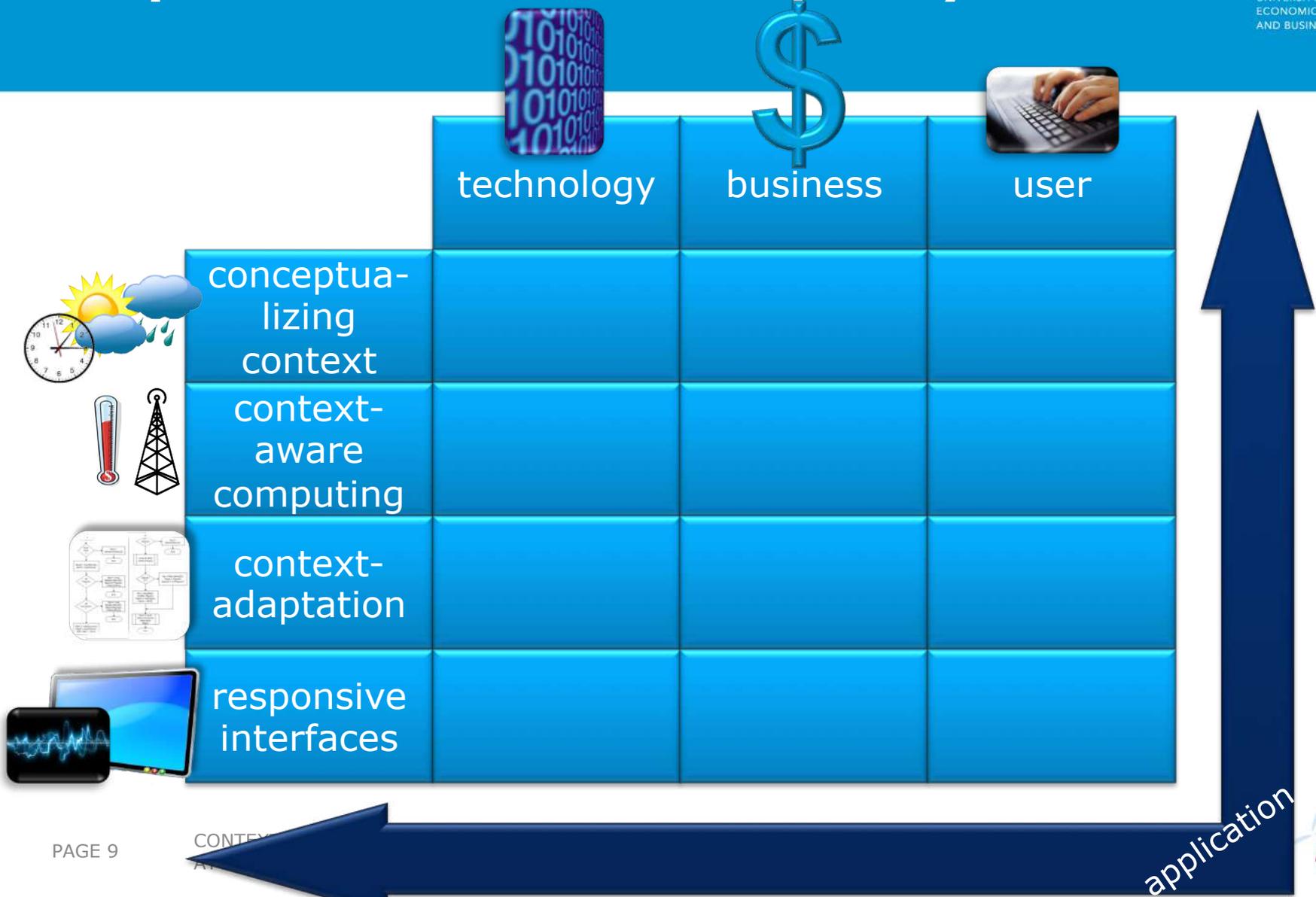
|	technology	business	user
conceptua-lizing context			
context-aware computing			
context-adaptation			
responsive interfaces			

application

CONTEX…
A…

EFMD
EQUIS

Previous research focuses on technology.

focus on developing architectures, prototypes, and toolkits

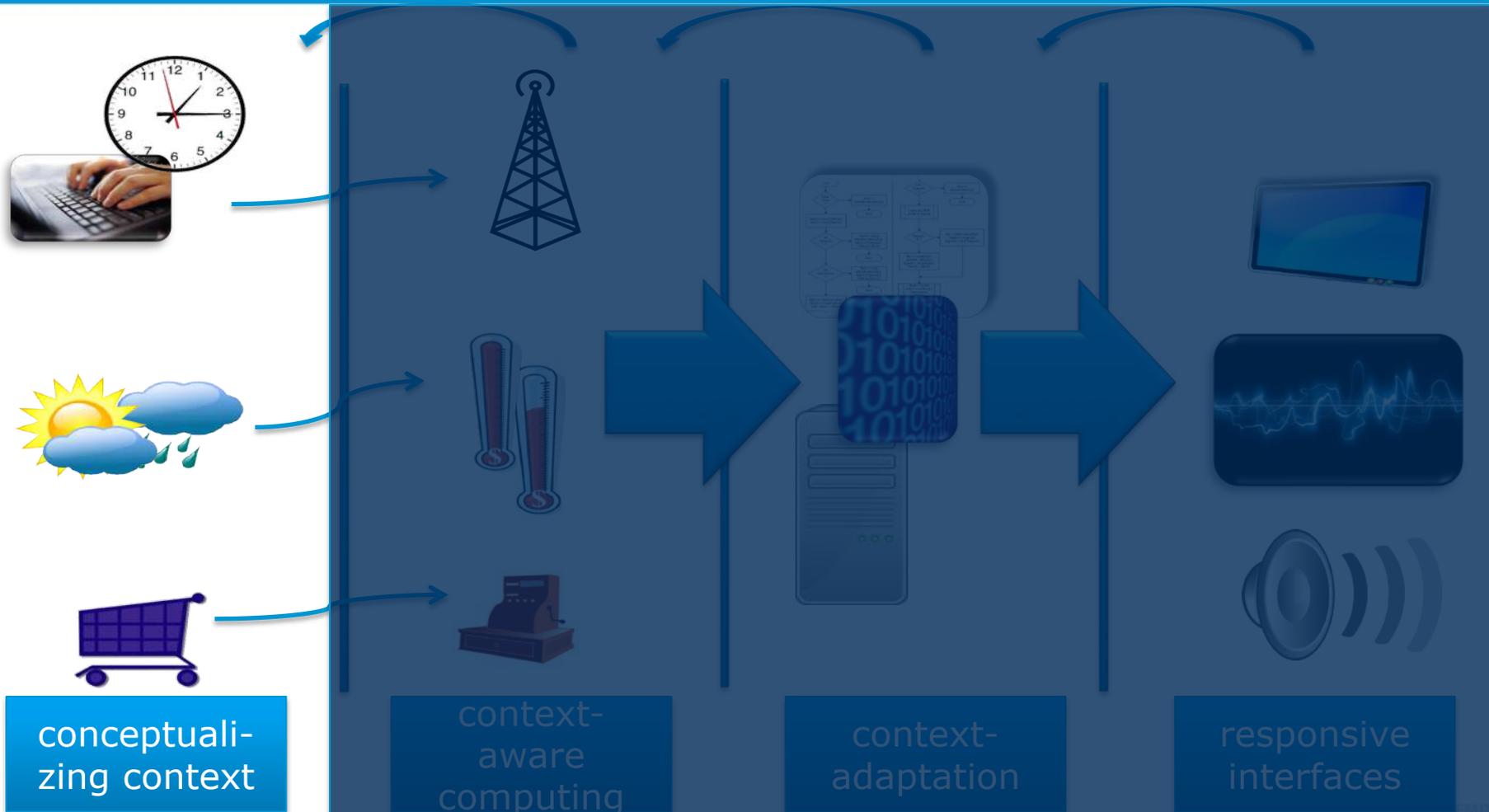advancement of detecting technology (e.g. sensors)

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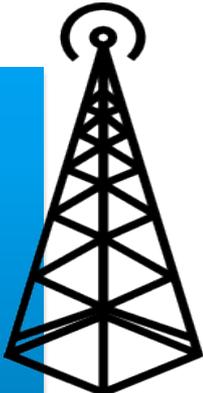
Challenge:

Which context information do we need to consider?

Conceptualization of context

conceptuali-
zing context

context-
aware
computing

context-
adaptation

responsive
interfaces

Challenge:

How can we capture required context data?

Interrelating context with detecting technologies

conceptuali-zing context

context-aware computing
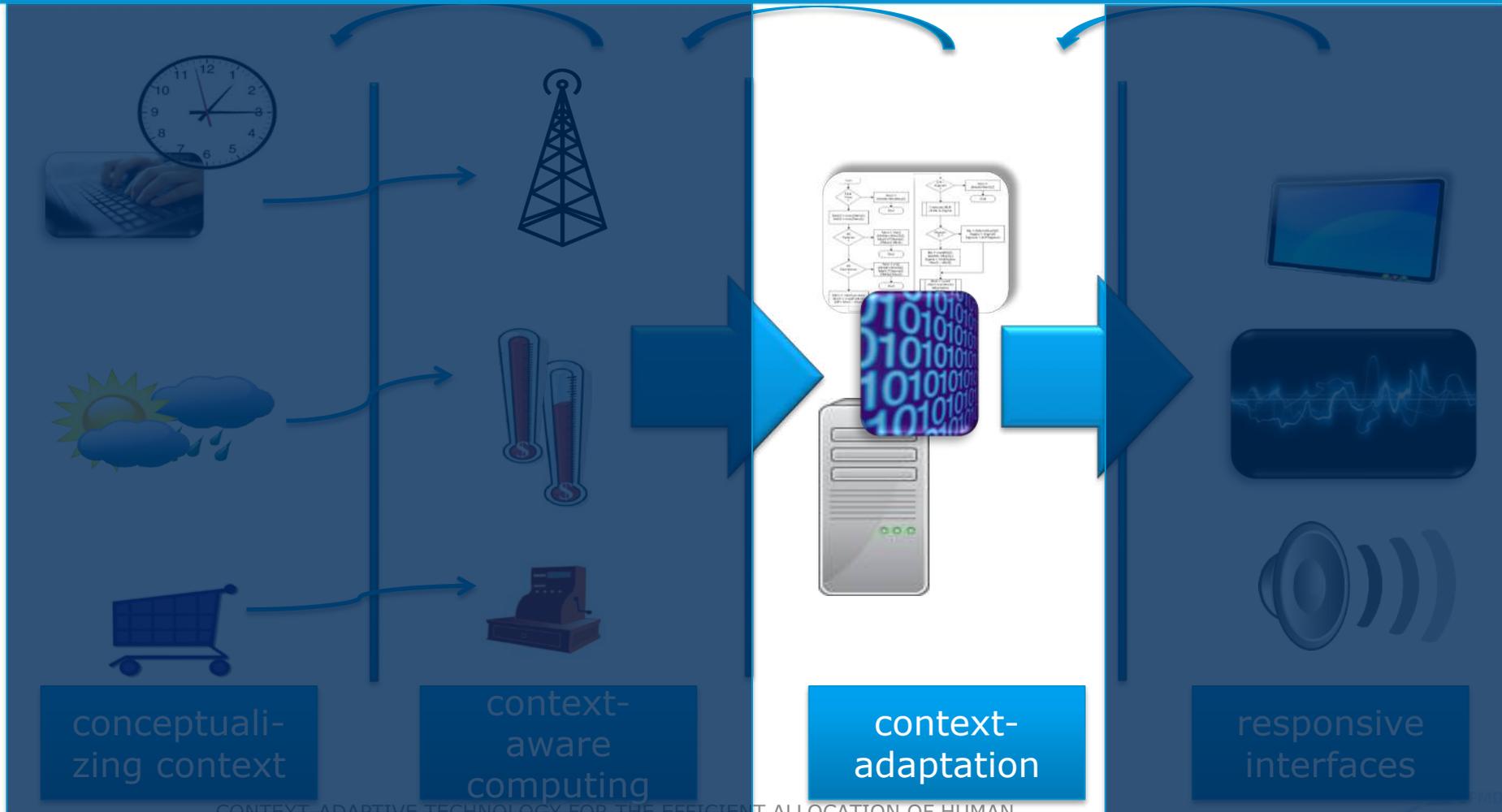
context-adaptation

responsive interfaces
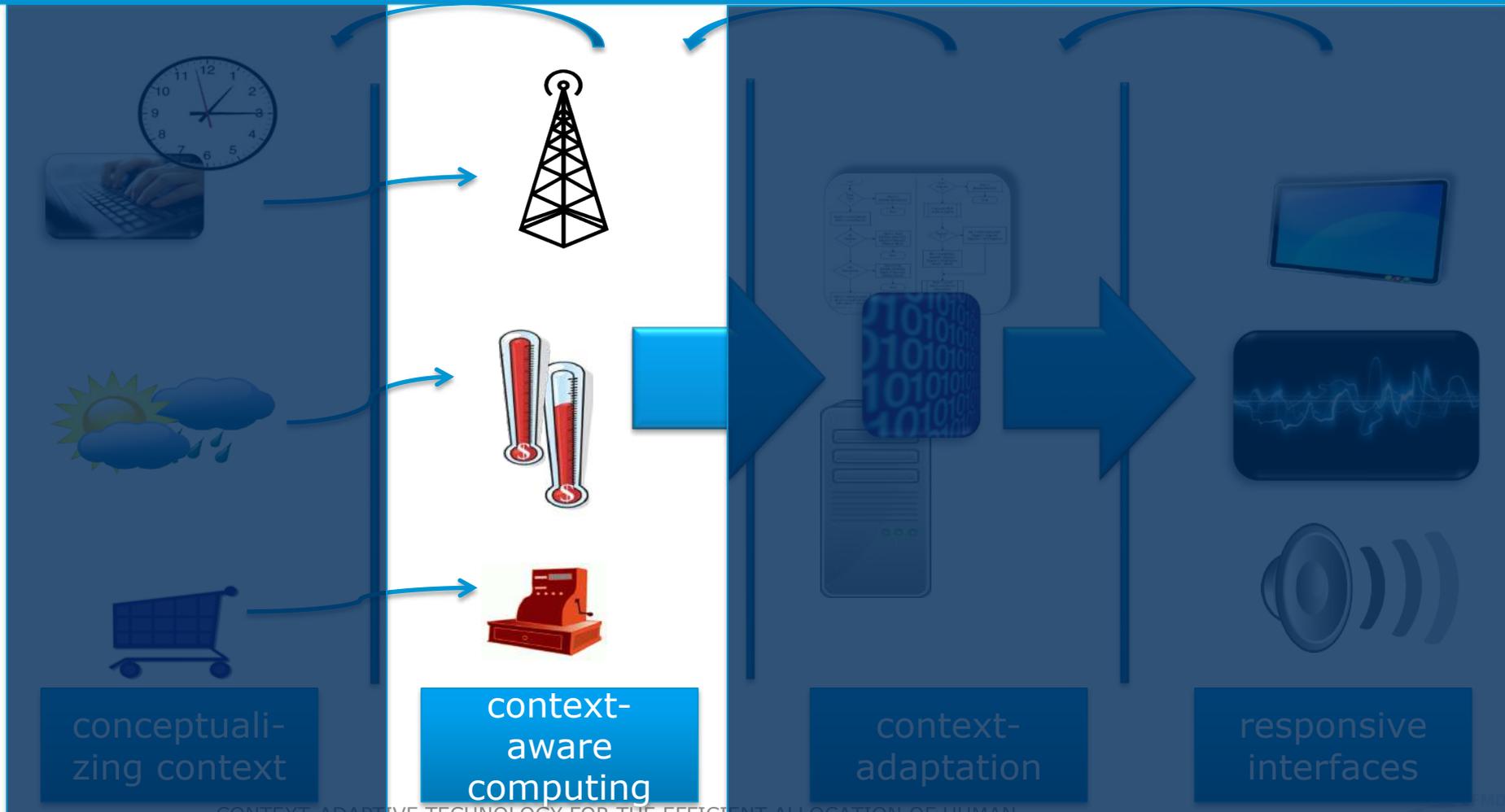
Challenge:

In which ways should systems adapt to context?

How should personalization be undertaken?

Algorithms for context-adaptation
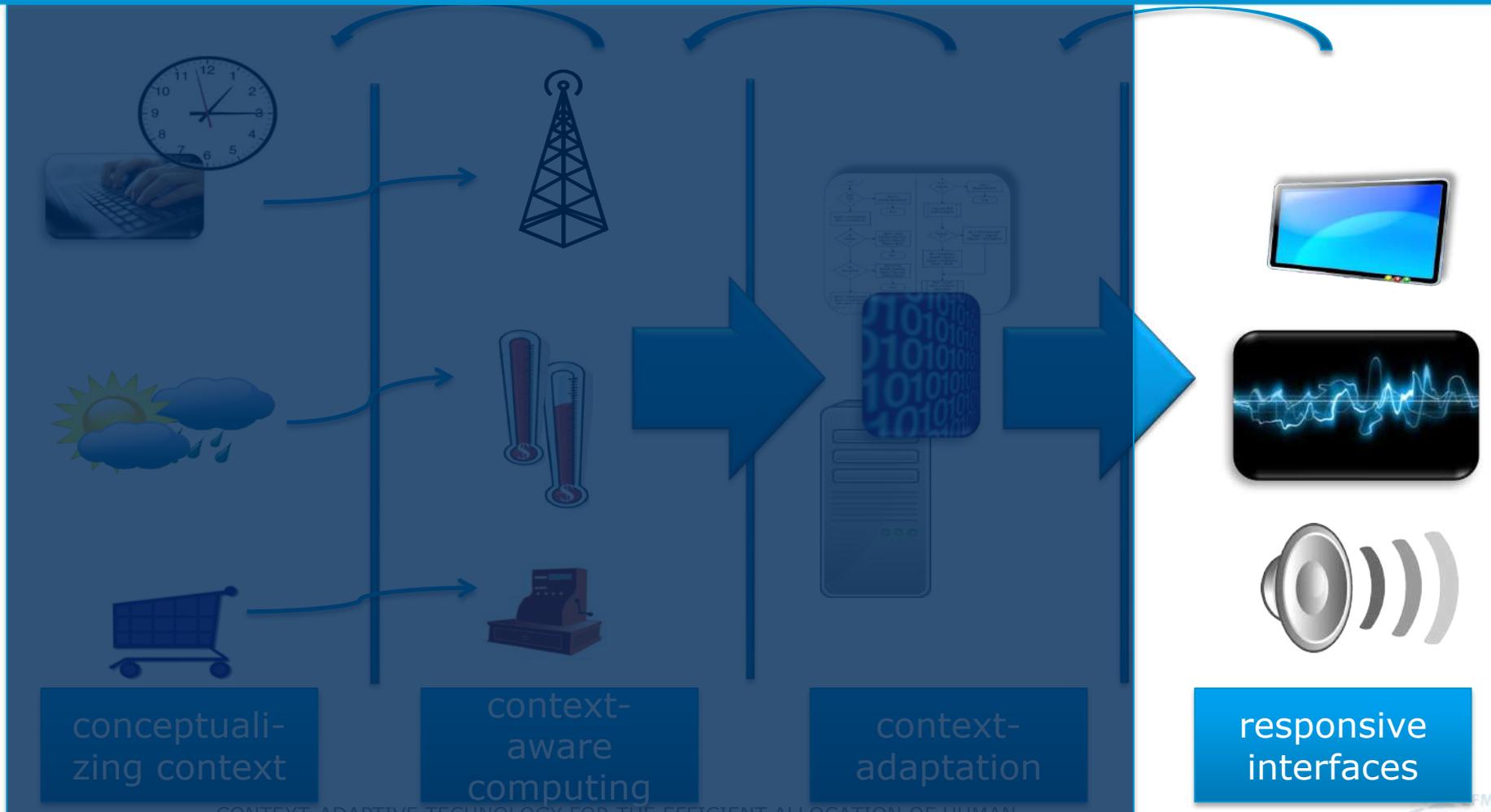

conceptuali-zing context

context-aware computing

context-adaptation

responsive interfaces

CONTEXT-ADAPTIVE TECHNOLOGY FOR THE EFFICIENT ALLOCATION OF HUMAN ATTENTION

Challenge:

How should adapted information reach a user?

Responsive interfaces

conceptuali-zing context

context-aware computing

context-adaptation

responsive interfaces

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