

## Context

How do we define it and how does it define content and research

### What We Talk About When We Talk About Context

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**Abstract.** The emergence of ubiquitous computing as a new design paradigm poses significant challenges for HCI and interaction design. Traditionally, human-computer interaction has taken place within a constrained and well-understood domain of experience – single users sitting at desks and interacting with conventionally-designed computers employing screens, keyboards and mice for interaction. New opportunities have engendered considerable interest in "context-aware computing" – computational systems that can sense and respond to aspects of the settings in which they are used. However, considerable confusion surrounds the

#### Context

Any information that can be used to characterize the situation of entities. Typically the location, identity, and state of people, groups, and computational and physical objects.

Dey et al. (2001)

Context encompasses more than just the user's location, because other things of interest are also mobile and changing. Context includes lighting, noise level, network connectivity, communication costs, communication bandwidth, and even the social situation; e.g., whether you are with your manager or with a co-worker.

Schilit et al. (1994)

"what is context and how can it be encoded?"

"how and why, in the course of their interactions, do people achieve and maintain a mutual understanding of the context for their actions?"

#### **Assumptions over context**

- Context is information
  It is something that can be known and hence encoded and represented.
- Gontext is delimited

  We can define what counts as the context of activities that the application supports and do so in advance.
- Gontext is stable

  The determination of the relevance of any potential contextual element can be made once and for all.
- Context and activity are separable

  The context describes features of the environment within which the activity takes place, but which are separate from the activity itself.

#### **Reframing context**

Context is information

It is something that can be known and hence encoded and represented.

Context is delimited

We can define what counts as the context of activities that the application supports and do so in advance.

Context is stable

The determination of the relevance of any potential contextual element can be made once and for all.

**Context and activity are separable** 

The context describes features of the environment within which the activity takes place, but which are separate from the activity itself.

#### **Contextuality is a property**

Contextuality is a relational property of information: something may or may not be contextually relevant to some particular activity.

#### **Context** is dynamic

The scope of contextual features is defined dynamically.

**Context** is an occasioned property

Context is particular to each occasion of activity or action.

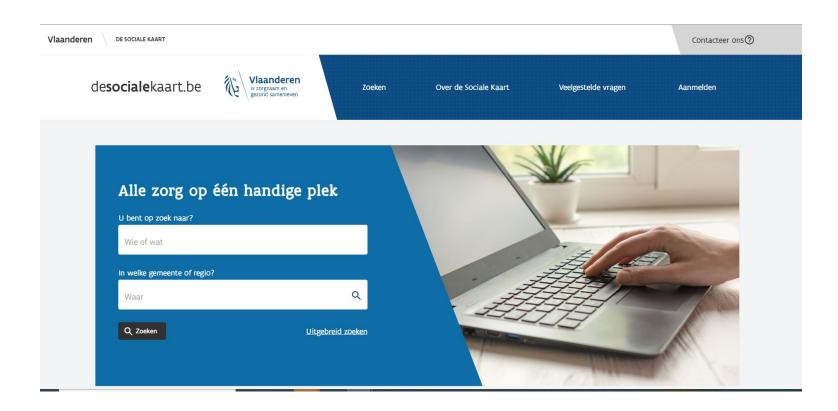
**Context arises from the activity** 

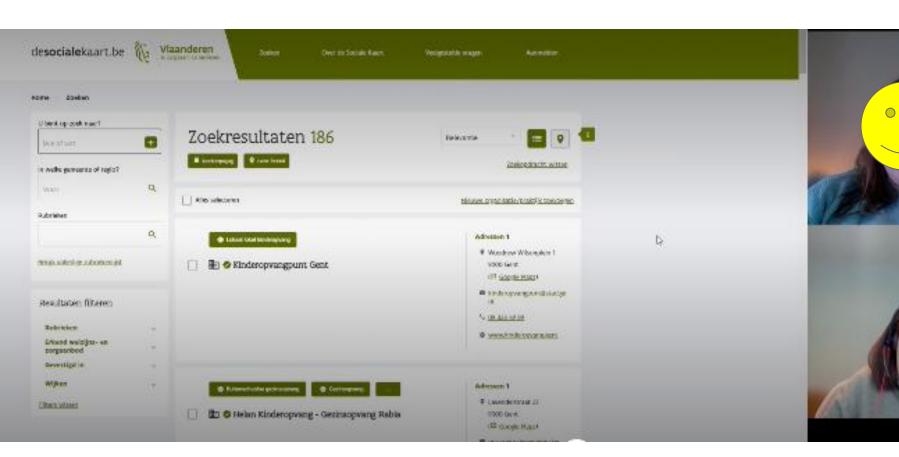
Context is actively produced, maintained and enacted in the course of the activity at hand.

## Context en content

#### **Sociale kaart**







#### **Citizens**

Looking for a care provider

Searching for solutions for a self assessed situation/problem

Looking for qualitative info about a specific care provider

After having the situation assessed by a care provider, searching for further options or qualitative info.

#### **Care providers**

Referring a patient/ client

Partnerships / network

Looking for care providers to refer patients to, in a different or adjacent domain of expertise.

Looking for care providers to partner with in the same or adjacent domain of expertise.

#### 1. Contextuality is a property

What is contextually relevant in the search for a care provider?

#### **Citizens**

- Level of knowledge about the domain (and jargon)
- Other people/care providers involved
- Community / social context
- Level of quality of needed info

- Level of knowledge about the domain and landscape
- Organisational context
- Level of detail of needed info

#### 2. Context is dynamic

What are potential contextual features that could be dynamically defined?

#### **Citizens**

- Knowledge of procedures/rights
- Needs are changing/evolving

- Regulatory framework
- New care providers entering the domain

#### 3. Context is an occasioned property

What is particular to each occasion of searching for a care provider?

#### **Citizens**

- Searching for another person
- Richness of the landscape of care providers
- Time constraints
- Level of trustworthiness of needed info

- Domain of expertise (same or other)
- Richness of the landscape of care providers
- Diversity of questions from patients

#### 4. Context arises from the activity

How does this activity shape the context?

#### **Citizens**

- Increased knowledge of the landscape
- Contact with new care providers

- Increased knowledge of the landscape
- Partners/collaborators

#### Impact on content model

Care Care **Domains / types Problems** Objects provider organisation Qualitative info: Procedures Address, Attributes (inspections, quality contact details criteria) Care organisation(s) Relationships Care providers Complementary **Domains** Domains & Domains Care organisations procedures **Problems Problems** Care providers **Problems** Complementary care Complementary organisations providers CTA Contact Contact Follow Follow Compare Compare

#### **Impact on features**

#### **Citizens**

- Comparisons of types of care providers and care providers/organisations
- Personalised info based on socio-economical status and consequent rights

- Favourite domains
- Alerts for new providers in the favorited domains

# Context en user research

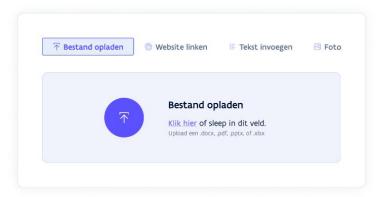
#### **Duidelijker**



#### Maak het duidelijk!

Ontdek een nieuwe manier om complexe teksten gemakkelijker te begrijpen! Met onze innovatieve functie kan je moeilijke te begrijpen brieven omzetten naar duidelijke taal. Vereenvoudig de inhoud met slechts één klik en geniet van een heldere, begrijpelijke versie. Maak het gemakkelijk, maak het toegankelijk, maak het jouw tekst!

Lees meer



#### Hoe moet ik dit doen?

Je kan een document opladen, verwijzen naar een website of zelf tekst ingeven. Voor het opladen van een document, klik je op 'bestand opladen' in het venster en volg je de instructies, of sleep je het document naar het grote kader rechts op onze website. Je kan ook een website die je in duidelijkere taal wil ingeven. Klik bovenaan in het kader.

Leer meer →





#### Research context (occasioned properties)

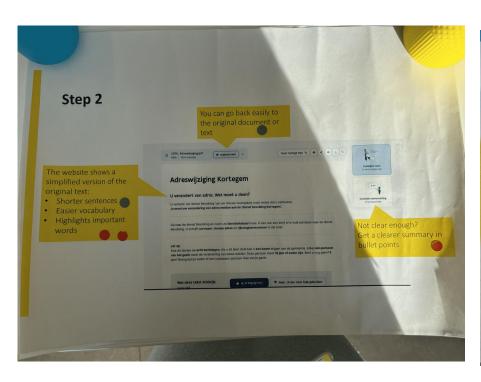
## People with low literacy level (Ligo class)

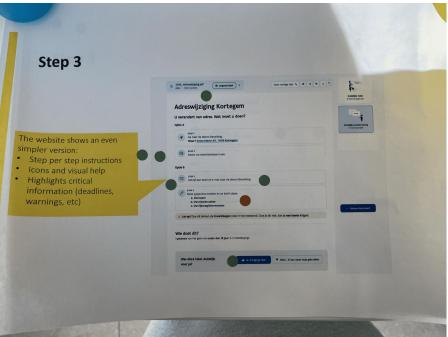
- Limited vocabulary in Dutch
- Difficulty in grasping abstract concepts
- Group/class context

## People recently arrived in Belgium (MO class)

- No proficiency in Dutch
- No knowledge of Belgian administration and government
- Group/class context

#### **Impact on research**





#### **Impact on research**



"By turning our attention from "context" (as a set of descriptive features of settings) to "practice" (forms of engagement with those settings), we assigned a central role to the meanings that people find in the world and the meanings of their actions there in terms of the consequences and interpretations of those actions for themselves and for others."

## Thank you

Clementina Gentile