Number	LANCS-D4.1-SN-A	A-PI--

Title	Summary Note (SN) for D4.1
Subtitle	Ethical aspects of development **A** : *Intelligent Environments*

PROBLEM		SOLUTION	

Research Note	X	Selected Annotation	

Categories: | | |

Summary:

This note summarises expectations surrounding the development of seamless intelligent environments. It lists the main assumptions upon which they are conceived, and some of the problems stemming from these assumptions.

CONTEXT

The notion of intelligent environments bears strong resemblance with conceptions of seamless infrastructures supporting fully automated service systems and similar idealized engineering constructs. Such constructs however, are known to be impossible in the sense that they are bound to fail in accommodating humans going about their ordinary lives. The idealization effectively erases sociality and the messiness of keeping infrastructures and systems – as we know them – more or less on an even keel.

(Key readings include European Commission, 2011; Bell and Dourish, 2007; Suchman, 2007; Aarts and Encarnação, 2006; ISTAG, 2006; Bibel, 2005; Denning, 2002; ISTAG, 2001; Weiser, 1991; Dreyfus, 1992; Forsythe, 2001; Heath and Luff, 2000; Lynch, 1993; Akrich, 1992).

FACTS

The idea of making environments intelligent assumes:

1. that all necessary technical standards and protocols are agreed upon and used universally for maximum interoperability and seamlessness, i.e., that:
    - tools, devices, systems are fully interoperable
    - infrastructure is seamless and tools, devices fully integrated
    - service provisions (public and private) can operate unproblematically across infrastructures, standards and protocols
2. that data management is unproblematic, including:
    - the recording of personal data
    - the recording of preference profiles
    - sensing and recording behaviour-related information
    - aggregating, processing and disseminating data

COMMENT

Key problems stem from the impossibilities of seamlessness—the fact that infrastructures and systems will always require maintenance and, to some extent, ongoing interception. Consequently, intelligent environments will rely on decisions on what to record or sense, what to store, what to process and how, and under which conditions data can be used. This opens the doors to a host of problems which are poorly understood and turn on liability issues, privacy and data protection and, importantly also, organisational challenges.

- Who is responsible for adequate and timely response to critical scenarios – humans or machines, private or public bodies?
- Who has jurisdiction over data collected and processed on-the-fly?
- Who / what accesses the data?
- Who is responsible for infrastructures and environments, especially, interconnections?
- What are the risks when data propagate throughout systems, disparate collections of services or get lost in the infrastructures?

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