

Symbiotic Computing

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- Symbiotic computing is a basic idea that achieves an information processing environment, which autonomously supports human activities, by understanding human behavior and sociality in the real world.

- In symbiotic computing, human society and digital space interact with each other, based on "basic principle of symbiosis", where they increase information processing ability, activity, and stability by offering information and supports each other. As a result, it creates new relation for co-existence and co-prosperity based on mutual understanding between them.

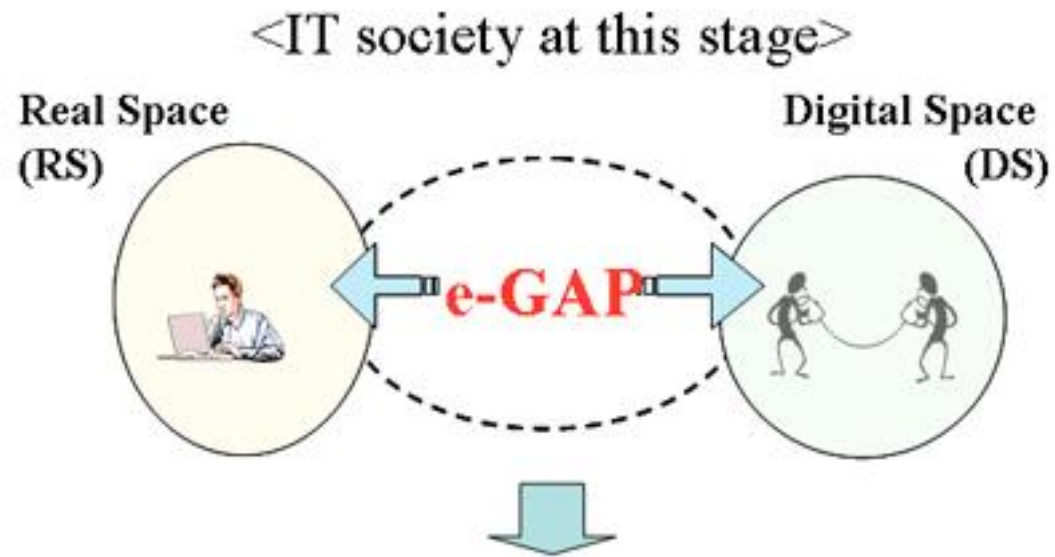
Concept

- **Definition1: Symbiosis**

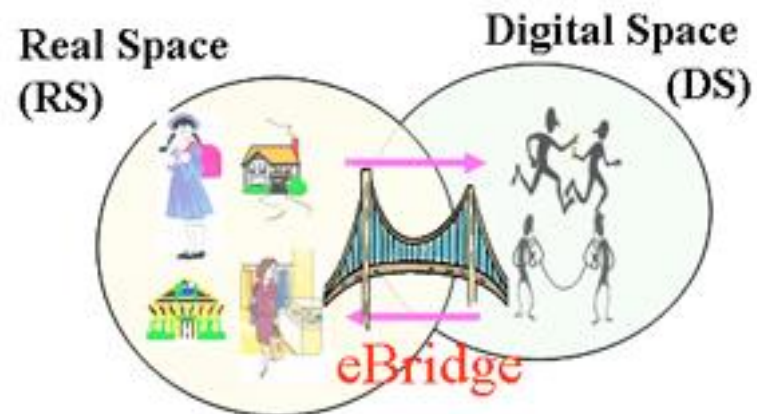
When an autonomous and intelligent digital space (DS) and a real space (RS) are closely related to each other and human activities in RS are supported without thinking how DS works, we call this ``Symbiosis'' between DS and RS. Generally, ``Symbiosis'' means ``a relationship between different types of animals or plants in which each provides for the other the conditions necessary for its continued existence''.

- **Definition2: Symbiotic Computing**
Enhancing the autonomy and intelligence of DS leads to the symbiosis of DS and RS, where people belongs, and makes it possible that people receive DS services anytime. We call this way of information processing ``Symbiotic computing''.
- **Definition3: Symbiotic relation**
``Symbiotic relation'' is a process in which people provide knowledge and do other things for DS so that both RS and DS develop.

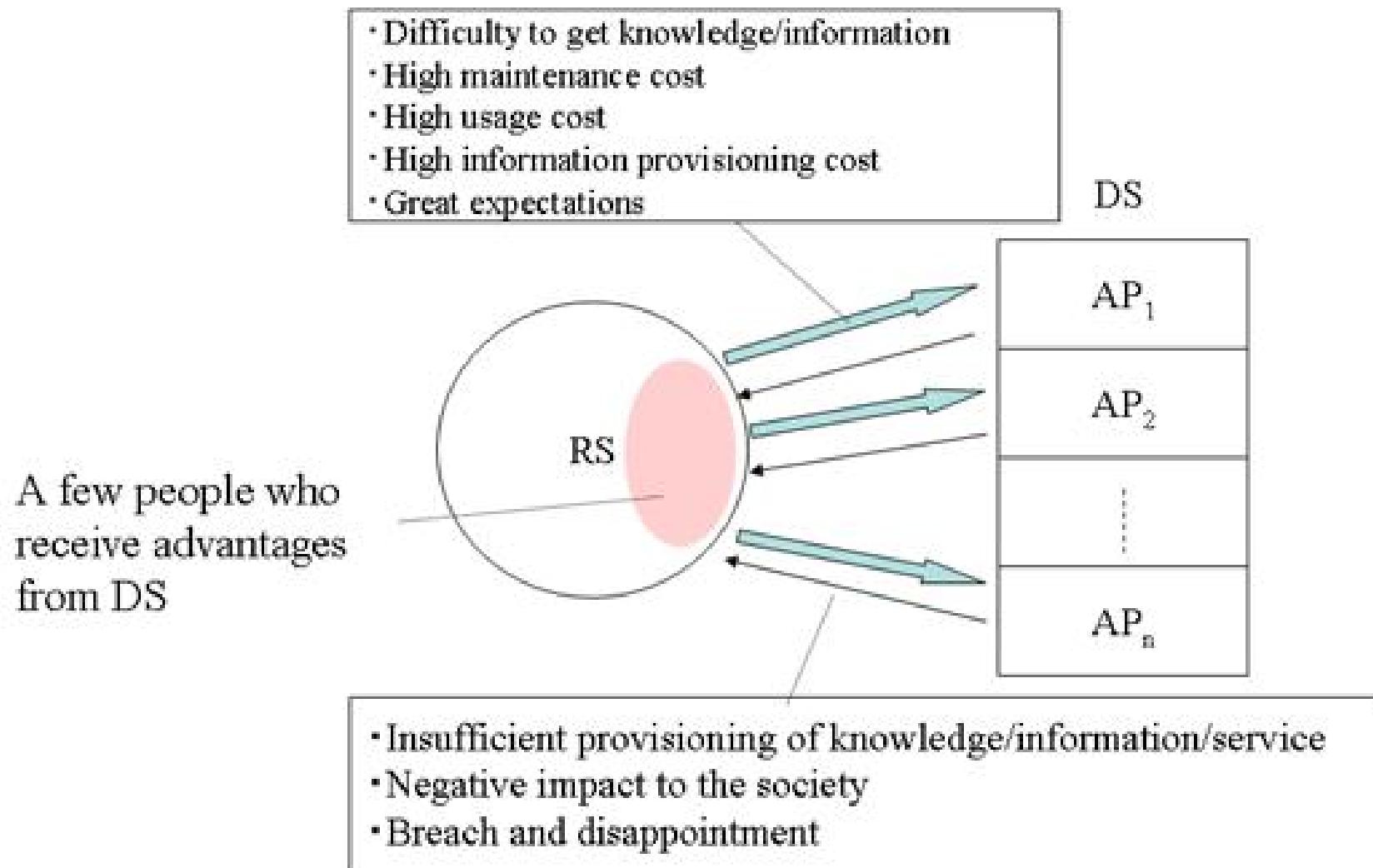
Purpose



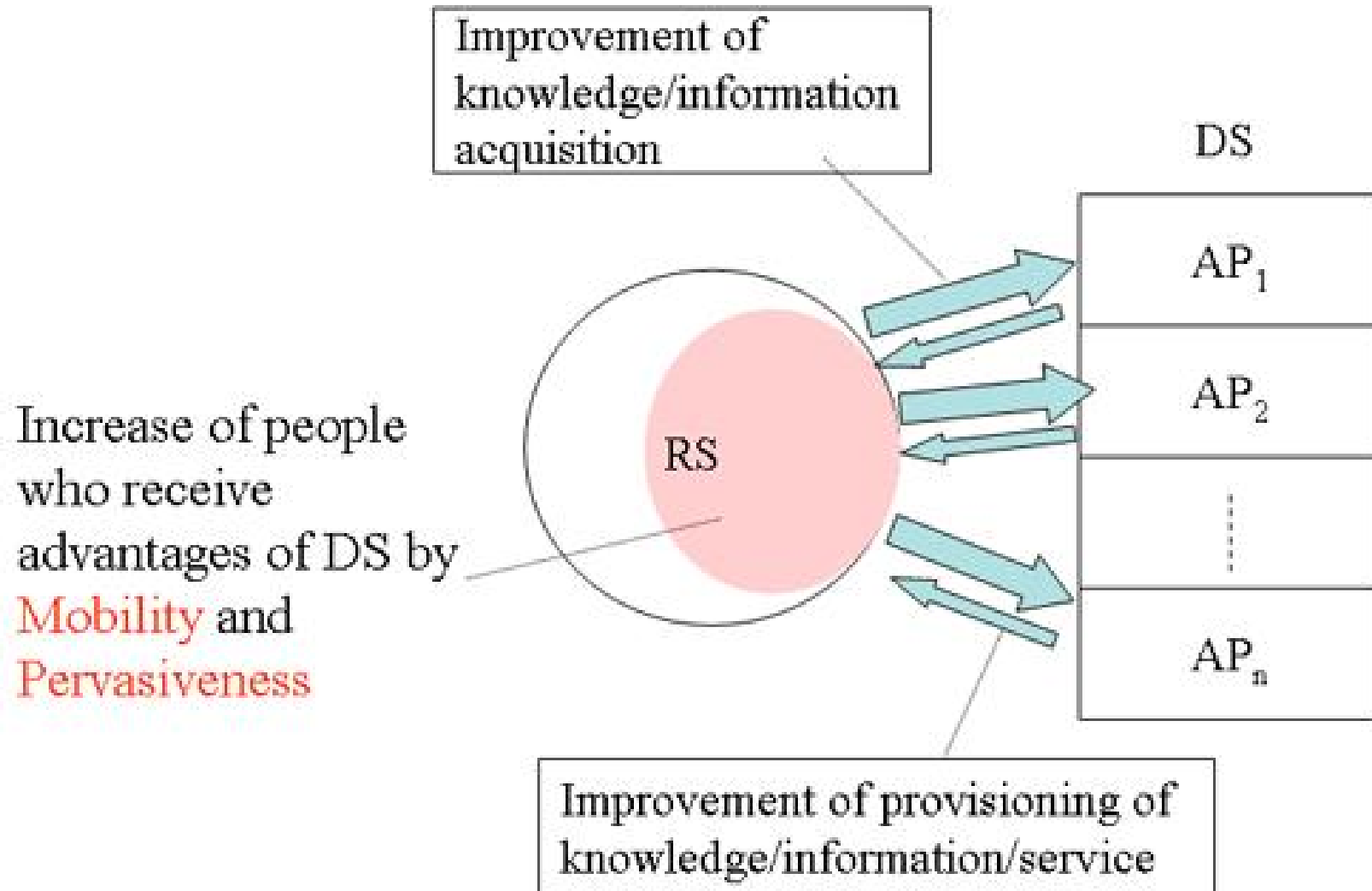
<<Symbiotic society in the future>>



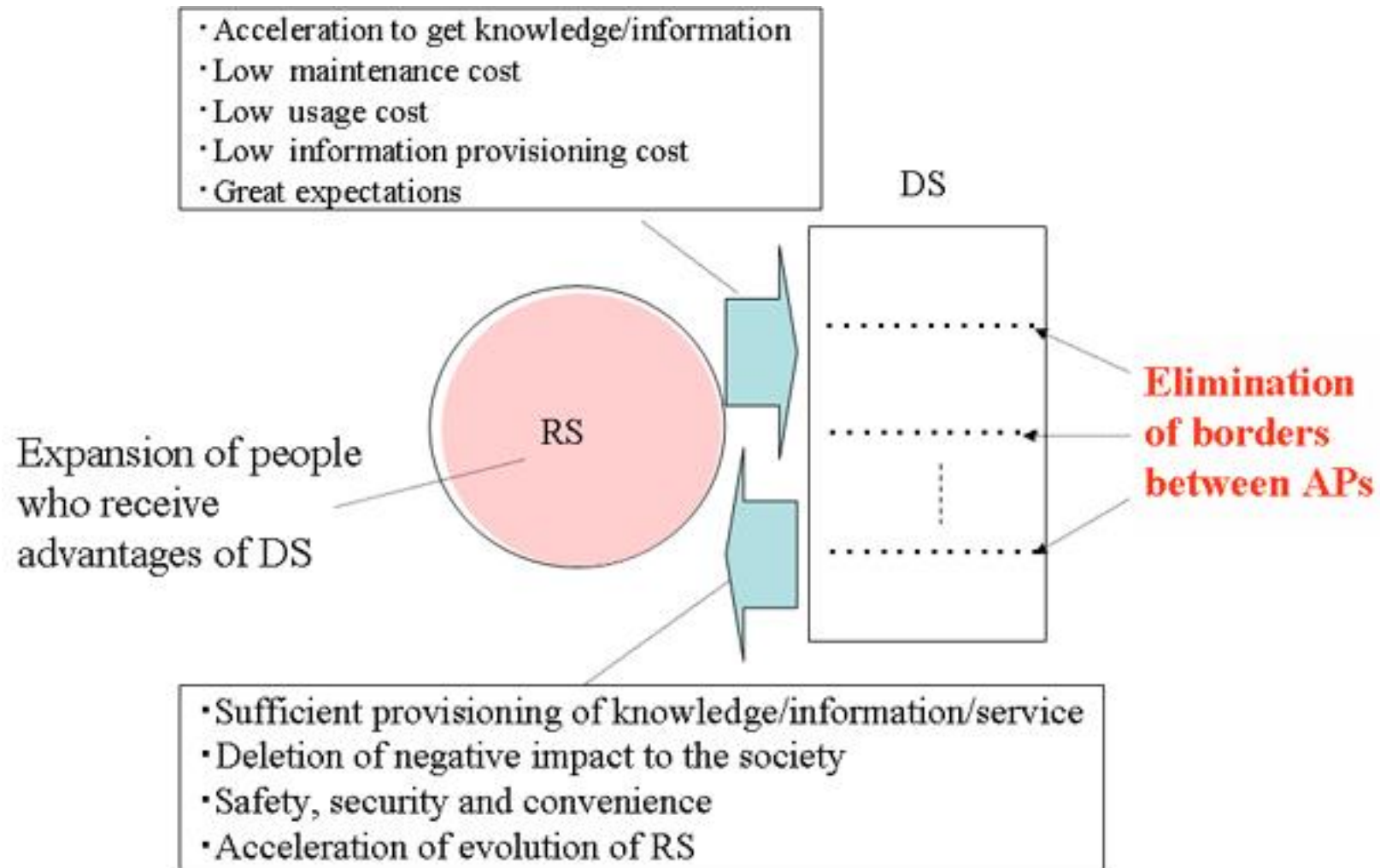
existing distributed computing form



Ubiquitous Computing



Ubiquitous Computing



Symbiotic computing model

