

Clarification of functional requirements and social acceptability of CCC

Progress until FY2022

1. Outline of the project

The aim of the R&D theme is to clarify the functional requirements for CCC as a complement to the traditional child care system. It will contribute to the overall goals of the project, which are the promotion of a flexible and responsible "Our Child Care" with the involvement of diverse people throughout society. In order to achieve these goals, we are addressing two specific issues to address the challenge of clarifying specific methods and policies for society-wide engagement in childcare.

Issue 1: Constructing requirements based on real-life parenting and expert perspectives

By interviewing diverse individuals and reviewing social systems, we'll assess pros and cons of involving third parties in childcare.

Issue 2: Testing family relationships based on CCC

We'll simulate a quasi-CCC with research group members, formulating hypotheses through role-playing and testing to analyze CCC's challenges and benefits.

2. Outcome so far

Issue 1:

A: Fact finding through interviewing (Figure)

Interviews with 18 parents, 20 children (ages 10-18) engaged with a third party, and 13 third parties unveiled Advantages and disadvantages.

B: Interviews with experts and establishment of an advisory board

Interviews with 19 experts and an advisory board

assessed CCC's compatibility, acceptability, and requirements.

Interviewee	Advantages	Disadvantages
 Parents	<ul style="list-style-type: none"> -Obtaining information on childcare -Formation of networks -Opportunities to take time away from childcare 	<ul style="list-style-type: none"> -Deterioration of parent-third party relationships and lack of trust -Negative effects of differences in parenting style
 Children	<ul style="list-style-type: none"> -Acquisitions of learning and experiences -Emotional interaction -Positive verbal communication 	<ul style="list-style-type: none"> -Effects of negative attitudes and comments -Psychological distance -Gaps in thought and lifestyle
 Third party	<ul style="list-style-type: none"> -Acquisitions of learning -Improved their health -Acquisitions of relationships with a younger person 	<ul style="list-style-type: none"> -Difficulty in dealing with children -Invasion of their private life -Perceived pressure

(Figure 1. List of advantages and disadvantages of third-party involvement in childcare)

C: Literature study related to alternative parenting

Based on 50 literature studies and interviews, CCC emphasizes deterring "competition" with birth parents and fostering caregiver relationships.

D: Case studies related to alternative parenting

Case studies revealed the need for a system considering the characteristics of both adults and children during matching.

Issue 2: Testing family relationships based on CCC

We conducted a CCC case study, involving a mother raising a toddler under one year old with alternative relatives. This process resulted in a concrete image of CCC: understanding, interpreting, deciding, and implementing interventions. Periodic interviews explored the family-surrogate relatives relationship.



3. Future plans

Challenge 1: Clarification of CCC functional requirements and building potential participant determination system

A: Fact-finding survey through interviews

Interviews with childcare support organizations and individuals will clarify CCC's requirements.

B: Opinion exchange with an advisory board of experts

We'll seek input from our advisory board regarding our envisioned CCC based on interview findings.

C: Review of literature related to alternative parenting

Through literature research and interviews, we'll refine and categorize CCC's functional requirements.

D: Case studies related to alternative parenting

Conducting case studies of other systems will clarify CCC's requirements and operational challenges.

Challenge 2: Testing family relationships based on CCC

We'll conduct third-party testing in "Oyamachi Living Lab" community to address specific issues and assess CCC benefits. Additionally, a workshop will create a model scenario for CCC implementation with diverse participants.

(SAITO Atsuko, TABUCHI Rokuro: Sophia University
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R&D Theme

System Design of Child Care Commons

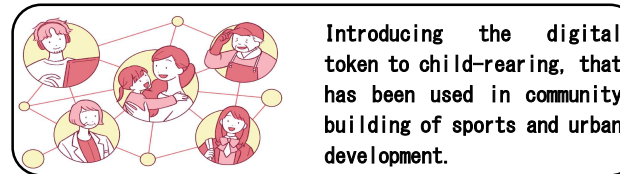
Progress until FY2022

1. Outline of the project

This Research and Development project aims to establish the requirements for a system that will be necessary to realize Child Care Commons (CCC). To achieve this goal, we will identify a set of functions that should be realized by the system and examine the requirements for technologies that can implement these functions (Issue 3). From the next year onward, we will also examine evaluation methods for the system to be realized (Issue 4). In recent years, attempts have been made to solve social issues related to community building, in sports and urban development, using digital technology, especially blockchain technology (and similar ones). Among these, digital tokens are issued as a way to support sports teams and participate in local government, increasing the variety of ways to get involved in the community. These tokens can create a sense of belongings for their communities, and a certain percentage of people become involved in the community as "fellow members" who are proactively engaged in their communities.

CCC introduces this kind of token into the child-rearing environment, bringing new options to the child-rearing. It creates the possibility for diverse people other than parents and children (hereafter referred to as "participants") to be involved in child-rearing in their own ways, in a flexible and responsible manner. This diversification of child-rearing will not only help parents and children who are suffering from various burdens but will also provide every child with the opportunity to choose his or her own relationships with a variety of adults and to grow. Participants would also gain a "proof" of their involvement in the time the children grow up and would be able

to obtain fulfillment such as a sense of involvement and contribution to child-rearing. To realize CCC, this item examines the set of functions and technical requirements to be realized in the CCC system, taking into consideration the relationship with the existing childrearing system.

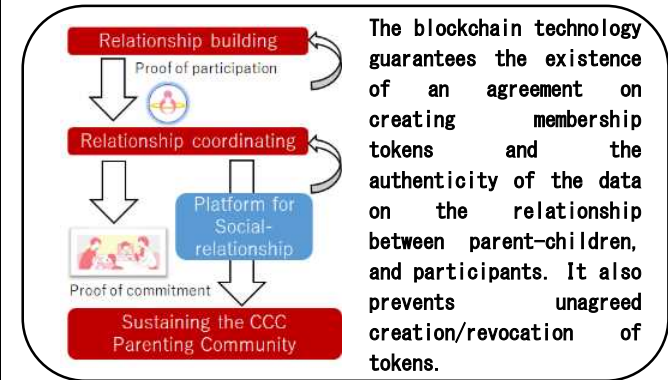


2. Outcome so far

The CCC system should not only electronically guarantee the involvement in child rearing, but also share data on parent-child and participant communication in the form each family desires while maintaining privacy. It also visualizes the relationships that are occurring there, and enable parents, children, and participants to update the parenting community at their own will. To date, we have identified a conceptual model of what actions are performed and what is realized between parents, children, and participants, as well as the technical requirements to realize this model. In this model, the construction of a child-rearing environment will be carried out based on consensus building, roughly in the following manner.

1) The interaction between the parent and child and the participant begins with "Relationship building". Once a consensus is reached, 2) a "membership token" is issued to the parent/child and participants to certify the participation in the parenting community. 3) The roles and involvement of the participants are then adjusted. 4) At that time, information, such as photos, is recorded as "proof" of the commitment to child-rearing. 5) The data of interaction between parent-child and

participants are input into the "Platform for Social Relationship" proposed by NTT, which is then manipulated and used to visualize relationships between the parent-child and participants. Through the process of 4) and 5), the parent-child and participants ensure that the community is sustained. 6) Then, when the relationship ends, the "membership token" is revoked with the agreement of the parent-child and participants.



3. Future plans

In the future, we will examine the technical aspects of the system, such as recording methods of communication between parents and participants, data privacy and security, as well as the institutional design and ethical aspects, such as rules for information sharing. In addition, as a method of system evaluation, we will also examine changes in the way of thinking and attitudes of participants as they engage in child-rearing from the viewpoints of cognitive science and brain science.

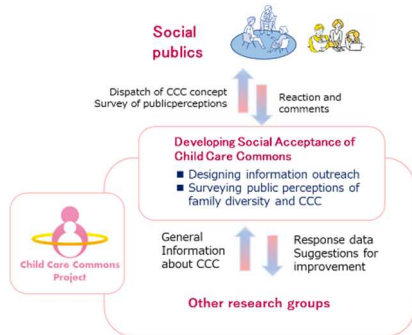
(WATANABE Junji, NTT Communication Science Laboratories
HOSODA Chihiro, Tohoku University)

Fostering Social Acceptance of Child Care Commons

Progress until FY2022

1. Outline of the project

In this research project, we will investigate various potential criticisms and opinions from the general public about the possibilities of various child-rearing environments. Furthermore, based on the results, we will propose modifications to the system and build requirements for CCC to be accepted by society in general, ultimately aiming to gain a broad understanding of the benefits of CCC and to create an atmosphere of acceptance for voluntary choice of various forms of child-rearing.



2. Outcome so far

We created a series of texts and illustrations explaining CCC through graphic recordings of meetings held during the project to organize the concept of CCC. Along with these materials, we conducted picture surveys of existing systems related to child rearing and possible new rearing environments in the future.

As a result of these surveys, we found that some extent of agreement was to be expected regarding the importance of allowing each parent and child to self-determine the environment and parenting style that best fits their needs, as well as the current concept of CCC. On the other hand, the results suggest that many people seem to have concerns about the feasibility of allowing each family to choose its own family form and privacy protections.

Taking the survey results into account, we produced a brochure in Japanese in which we present examples of custody sharing as it has been practiced to date and our current thinking on shared parental care.



(Extracts from the leaflet)

The leaflets are repeatedly revised based on evaluations and comments collected at closed workshops attended by non-professionals and persons actually engaged in child-rearing.



(Photographs from a workshop)

3. Future plans

A website and other information about the CCC project, based on the leaflet, will be made available to gather a wider range of responses. Based on the results, we will contribute to making proposals that will make CCC more acceptable to society in general and brushing up the requirements for building a system to support CCC. We will continue our research toward the realization of a society in which more people feel motivated to be involved in child-rearing in various ways.

(MARUYA Kazushi: NTT Communication Science Laboratories)