Attached Table 3　Generative Research Fields

This table applies only to the application section "Generative Research Fields" within the categories "Scientific Research (B)" and "Scientific Research (C)".
The period for which proposals are solicited for these areas is fixed as 3 years, beginning with the first fiscal year when the areas is established. In the first fiscal year of solicitation, the research period for which application proposals can be made is from 3 to 5 years, in the second fiscal year from 3 to 4 years, and in the third fiscal year 3 years.

○Areas Designated for FY2019 Recruitment

Area	Detail	Area Number	Proposal Solicitation
Orality and Society	Orality is a concept typically contrasted with literacy. Whereas literacy refers to the culture of letters and the world of written language, orality means the culture of the voice and the world of spoken language. This research field is, however, not limited narrowly to the spoken language, but looks for a more extended concept of orality, that is, social relations characterized by co-presence. Face-to-face relationships such as parenting, nursing and clinical care, and casual or intimate conversations are examples of co-presence. Even though oral communication is the core, an important role is played by physical interactions that cannot be reduced to conversation alone. Orality further encompasses the ability to understand the other person's feelings from voice, facial expression, gestures, and narrative, to suggest that he or she is looked after, and to sustain co-presence. Accordingly, orality goes beyond conversation and other vocal communication and oral culture, but with the implication of co-presence and empathic abilities, to include gestures, physical expressions, sign language, emotions and affect, care, narrative therapy, life story, oral history, performance art, collective memory, and other such elements. Nor is it limited to human beings, as it includes also the vocal and physical communications of animals and the relationships between human beings and animals. Today, with the advance of media technologies such as SNS and mobile phones, the nature of co-presence having orality as its core is undergoing major changes. Our social activities have expanded greatly in scope and become more convenient. Attention is further being directed to progress in modern technologies for assisting with research on orality as co-presence (voice and image sensing and analysis technologies, SNS recording, content analysis, mining, etc.) and technologies applying such research results (nursing care robots, machine translation, e-learning, multimodal conversation, etc.). There are at the same time arguments that the spread of SNS makes co-presence less important, thus eroding the ability to understand other people, and causing various social and mental problems. This generative research field includes humanities and social science research on the nature of co-presence and empathy centered on orality, takes into account the contemporary situation as described above, and conducts research on new media and communication technologies and technologies for analyzing face-to-face social relations and SNS-based big data. It is a new field taking a diverse approach to orality with the implication of co-presence and empathic abilities.	N010	FY2017 — FY2019

Area	Detail	Area Number	Proposal Solicitation
Agricultural Resources for the Next Generation	Primary industry used to refer to economic activities based on sustainable use of abundant local natural and agricultural resources. More recently, however, due to market mechanisms that promote myopic pursuit of productivity and profitability, the concentration of resources in specific sectors and uniformity of resource-using industries have economically impoverished primary industries as a whole and substantially diminished the sustainability of local communities. For example, while humans in the past cultivated thousands of plant varieties for food, the pursuit of economic rationality for increasing food production and overcoming starvation have led to a decline in the number of varieties of farm products and a loss of biodiversity. Similar trends can be seen in all kinds of agricultural resources in the forestry, fishery, and livestock industries. The loss of biodiversity and the trend toward uniform use of agricultural resources (the trend to monoculture) have resulted in deterioration of the soil, reduction of productivity in agricultural lands, and an increase in the risk of disaster. Moreover, increasing urban populations and policies favoring convenience, combined with the loss of diversity in agricultural resource utilization, have led to the decline of self-sustained and diverse local communities. To create a sustainable society, in addition to a reconsideration of economic policies, research will need to be conducted from a long-term perspective, based on science, on the prospects for new uses of agricultural resources for the next generation. Aiming to create a sustainable society, this generative research field seeks to develop a field that comprehensively promotes research addressing a range of topics including (a) restoring diversity of agricultural resource use; (b) how restoration of biodiversity will affect long-term reduction in negative environmental impacts, including reducing the risk of disaster; (c) enhancing the functionality of agricultural resources and promoting technical innovations in the agriculture, forestry, fishery, livestock, fermentation and other industries (to be addressed through basic research); and (d) social and institutional systems that leverage these research findings and employ collaboration with community-specific industries in creating sustainable local communities. Possible examples of such studies are development and research on new agricultural resources that are marketable and will help promote the establishment of a sound material-cycle society, along with their functions; research on policies for utilizing research seeds based on agricultural science for sustainable local communities; research on social systems for taking advantage of the functionality of community-specific agricultural resources; and research on a technological infrastructure supporting diverse and region-specific local community formation. Another possibility is research seeking to discover a model for next-generation primary industry by tracing back in history and looking at the world from the perspective of how diverse agricultural resources have been maintained in various regions in harmony with nature hitherto. This new research field comprises a broad academic discipline encompassing, in addition to agricultural science, natural sciences such as ecology and environmental science, and social sciences such as economics and policy science.	N011	FY2017 — FY2019
The Information Society and Trust	With the rapid evolution of the information and communication fields, huge amounts of sensing information are being generated on networks of computers, sensors and other devices and are being stored as Big Data in cyber space, typically in cloud storage. As this information is flexibly utilized for combining people and things in real space, new services are being created that contribute to people's daily life, socio-economic activity, education and research activity, and administrative activity, moving us toward a new information society in which large numbers of people use these services as social infrastructure. To ensure sound advancement of the information society, it will be important to ensure trust without hindering the ubiquity of information and communication. Since long ago, connections between people have grown into organizations, markets, and society, and trust has been built on the foundation of personal relationships. That alone, however, is not sufficient for building trust in a society extending over networks of unseen faces, where various social problems have arisen concerning security and privacy. It is not easy to achieve trust in the information society, where multi-stakeholders exist. In many cases the preconditions for trust are not clearly defined among the people, organizations, services, systems and other constituent elements, namely, who (or what) is to trust what to what extent. Seen from individual elements or in the aggregate, often it is not clear how trust is realized. Objective measures and methods for evaluation of trust, as well as methods for properly designing and realizing trust based on a variety of constraints, have not been established, nor have methods for strengthening society's efforts to ensure trustworthiness of the target services and systems. In many different fields of society, including manufacturing, farming, commerce, finance, logistics, transportation, tourism, social services, healthcare, education, disaster prevention, energy conservation, and environmental improvement, the ability to combine and make use of various information obtained from people and things enables more advanced services to be provided, but at the same time it compounds the difficulty of preserving confidentiality and protecting privacy. What is the proper way to design the scope of disclosure and level of detail, based on trust, for various information including personal information, trade secrets, and intellectual property? What kind of legal institutions and norms are needed? What should be considered from the standpoint of ethics and morals? How can compatibility be achieved with technologies, systems, services, and business models? These are among the many questions to be addressed. This generative research field takes a multifaceted approach to the study of trust in contemporary society.	N012	