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Networking AI systems to promote ethical design practice

Artificial Intelligence (AI) technologies are becoming more and more influential and require elaborate introduction into society. As a way of this introduction, we propose to utilize AI technologies for promoting design activities realizing further societal values such as freedom, equality, public health, etc. Our idea comprises two steps: (1) implementing individual AI systems dealing with ethical and/or technical discourses and (2) networking them to be complementary between one another. Since we cannot realize an absolute AI system to deal with such values because values are considered to be pluralistic, networking for realizing complementarity is important. One example of such AI-based system is Dfrome (design from the ethics level) that is our organic and dynamic design support tool. Dfrome can articulate different ethical and technical terms and provide information to users depending on context each user has. Another example is KNC (knowledge nebula crystallizer) that generates stories in a new context from research notes we have accumulated for about fifteen years. When a user sets a constraint to KNC then it provides candidates of a story by ordering suitable notes by solving constraint satisfaction problem. Then, the network forms a public space to discuss what an artifacts' role should be by introducing various stakeholders including engineers, ethicists, etc. as well as provides dynamic knowledge to participants and promote ethical design practice. We review use cases of the two tools and obtained experimental results. We next discuss the prospects of the network and conclude that we could confirm its validity.