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SOLIDARITY

DIGITAL SOLIDARITY PRINCIPLES (DSP)

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The complex nature and implications of software often appears to overwhelm policy makers. This often results in transactional dialogue at the expense of human-centric value creation. By developing Digital Solidarity Principles (DSP), we can establish a framework that guides multilateral dialogue on emerging technology towards the human value of solidarity and maximizes the positive public contribution of digitization.

Global challenge

Digital Solidarity Principles are based on the best practice of design principles that guide private software development and public digital services development. To date, there is no digital-specific equivalent in multilateral forums. Consequently, multilateral digitization dialogue does not always serve common interests, similarities, and sympathies that may be achieved through policy to foster solidarity within and between member states.

Solidarity as a value presumes that “benefits and obligations are justly shared between members of the society” (Jalsenjak 2020). Digital Solidarity Principles could serve as a national preference framework for countries to recognize their national priorities related to digitization.

The interconnected and digitized 21st century means formerly local issues now have global consequences (Figueres 2021). If we take a public value approach through the construct of Digital Solidarity Principles, we can enable governments to collaboratively meet high levels of public expectation by addressing the collective value of digital services, not the sum of individual services (Panagiotopoulos et al. 2019).

Software is the material of digitization. Each line of code created by writing software contributes to an inter-related ecosystem of applications and services that flows invisibly between personal,

organizational, and national boundaries. Each actor in the ecosystem operates with a subset of applications and services that are created and maintained by public and private entities. Additionally, existing software continuously finds new applications while continuous innovation develops new software languages creating an ever changing and quickly evolving digital ecosystem. The scale and technical complexity of software is sometimes beyond human comprehension, and, in some cases such as artificial intelligence methods like neural networks (Adadi and Berrada 2018), those who create the software themselves cannot explain how it works.

The consequences of this complexity do have associated costs, such as, government digitization-project failures running into billions of pounds, dollars, or euros (Wikipedia 2021), and growing digital inequality across society. In both cases, the absence of what society wants from digitization is a root issue. Digitization is a global phenomenon without a framework to articulate what G20 nations aspire to achieve collectively through digitization on behalf of society. Consequently, policy discussions default to transactional topics of who owns, pays for, or accesses the technology.

This zero-sum mindset fails to accommodate the value creation opportunities and human outcomes enabled by digitization. While some private firms profit greatly from global digitization, frameworks to discuss wider societal outcomes are absent. Learning from private and domestic digitization best practices, the G20 has an opportunity to leverage “design principles” to reintroduce human centricity to multilateral digitization dialogue. Digital Solidarity Principles could provide a framework to guide digital policy towards fostering global solidarity for the benefit of all.

Global solution

Introducing Principles of Digital Unity for Solidarity

Digital Solidarity Principles could guide how we

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create, develop, and maintain unity through digitization between individuals, groups, or societies. It would establish a framework for universal human-centric digitization outcomes based on mutual awareness of common interests, similarities, and sympathies.

Just as the Sustainable Development Goals (SDG) set out an ambition of what we aspire through sustainability (UN 2018), the Digital Solidarity Principles (DSP) would aim to establish a vision on behalf of all G20 nations of what we aspire to achieve for society through digitization. Where SDGs serve as a “blueprint to achieve a better and more sustainable future for all” the DSP principles would aspire to achieve a fair and just application of software for all.

The idea of DSPs is based on the paradigm of using design principles to guide complex discussions and policy on digitization in society. What unites all software is the intent for why it is created or how it is used. Each line of code enables or disables functionality. There are infinite possibilities of what software could do and finite time and resources in which to do it. This is where the use of design principles could serve as a north star for the organization of preferred values.

The challenges and opportunities of digitization, AI (artificial intelligence) in particular, have been acknowledged by G20 Trade Ministers in the 2019 Ministerial Statement on Trade and Digital Economy. Equally the use of SDGs as goals and recognition that the benefits of digitization have not been shared widely enough with all countries and members of society, in particular the vulnerable. The DSPs elevate and expand the five “Principles for responsible stewardship of trustworthy AI” to be more comprehensive and intentional towards the value of solidarity.

Understanding the Paradigm of Digitization Principles Through Private and Public Precedents

In a private organization, design principles establish and reinforce the value the firm creates and protects for stakeholders. Design principles are how a firm establishes its values. The principles serve as a guide towards the outcomes

they aspire to fulfill. They empower individual actors to have a common language and work towards open-ended outcomes over and above the specific tasks or topics they must work through on a day-to-day basis.

At their best, design principles are born from human-centric values. They allow individuals who may have different personal interests to come together over shared interests as represented by the principles. In practice for private firms, differentiation and competition is the intent of design principles. Its aim is neither solidarity nor a wider discussion of what are the desirable societal outcomes of digitization within or between nations.

Digitization is a global phenomenon. All digital services we use as citizens are an aggregation of individual services that come together through formal and informal relationships. To demonstrate how design principles can align societal aims with aggregated digital services, we have recently seen the successful application of design principles to the digitization of digital services within individual countries.

The UK (GDS), USA (USDS), Canada (CDS) and New Zealand (GDS) stand out as exemplars among others. Their use of design principles espouses what they wish to achieve and what is valued in how they do it. Including the very premise of being human centric rather than government centric. In many ways, these principles reflect both a nation's values in general and how digitization can serve those values in practice through the intent and purpose of each line of code. These national design principles set out how citizens interact with digitized government services. They guide how government digital services are developed and maintained. They perpetuate policy and governance that enables fulfilment of the principles. At the heart of design principles are the human-centric outcomes of citizens.

Shifting From National to Multilateral

Building on the precedents of public value creation at a national level and ground-up approach of e-government, we propose DSPs as a mission-oriented approach to multi-lateral

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digitization policy (Kattel and Muzzacato 2018). Digital Solidarity Principles would express the digitization missions and outcomes to which citizens of G20 nations aspire. They are a pathway to voice society's human-centric needs to guide digitization policy development.

The V20 is at the forefront of a movement to inject digital design principles into multilateral discussions. Ten nations, including four G20 nations, are signatories to The Digital Nations Charter (Digital Nations Charter 2021). The Charter's goal is:

“The DN will provide a focused forum to share best practice, identify how to improve the Participants’ digital services, collaborate on common projects and to support and champion our growing digital economies.”

There is an opportunity to build on cooperation between leading digital nations and raise the floor of human-centric outcomes for all G20 nations. However, this requires an approach that establishes the digitization expectations of human needs.

A key multilateral precedent is UNICEF's Designing for Children's Rights (D4CR). D4CR builds on the United Nations' Rights of the Child (UNCRC) convention to establish principles on behalf of children who are a vulnerable segment representing 26% of the global population (Statistica 2021). Children across different demographics are a population to whom digitization, despite its perceived benefits, creates vulnerabilities that can hinder development and enable exploitation. D4CR uses design principles for children to guide policy and software development. Each principle represents a human centric outcome and is supported by a proposed digital right of the child. For example:

- Principle 1: Everyone Can Use (Right to Non-Discrimination).
- Principle 2: Give me Room to Explore and Support my Growth (Right to Development).
- Principle 3: I Have Purpose so Make my Influence Matter (Right to Participate).

Just as the D4CR has the mission, or intent, of fostering children's rights through policy and design affecting children, Digital Solidarity Principles would address all citizens concerned with or impacted by digitization. Specifically, this includes where biases or prejudices divert digitization discussions away from solidarity and greater societal outcomes. Digital Solidarity Principles would fill the void between human rights and digitization policy. They would provide policy makers, along with public, private, and civil organizations, a common framework where digitization is centered around human-based outcomes over and above technical outcomes, such as taxation and intellectual property ownership. Their goal is to make digitization fair and just, so that the benefits and obligations are shared between members of society. The Digital Principles of Solidarity would define the outcomes of how solidarity, bounded by digitization, could work in service of, rather than in conflict with, people and society.

Policy recommendations

1. Introducing Fair Process as Policy

- a. Cooperation between the G20 nations may ensure fair representation of individual, collective, and social concerns (Chan Kim and Mauborgne 1998). Introducing 'Fair Process' may allow the understandings, beliefs, and experiences of all stakeholders to be shared with sympathy and reflexivity to identify aligned and discrepant values without hindering policy development.
- b. Practically, this could involve a working session at the G20 summit attended by representatives from all G20 nations to establish the parameters and participants for a Digital Solidarity Principles Summit held in the following six months.

2. Co-development of Principles

- a. The DSP Summit could use Design Thinking to collaboratively co-develop, define, and ratify an initial DSP framework. Design Thinking is a non-linear, iterative process that working groups use to understand users, challenge assumptions, redefine problems, and create innovative solutions to prototype and test (Design Thinking 2021).

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- b. The summit could be facilitated by experts in digitization and policy, with a focus on Design Thinking and psychodynamic systems. Summit delegates would include G20 representatives and social, technical, and policy experts.
- c. The process would establish the first DSPs to test in select policy forums. For example:
 - i. Right to privacy
 - ii. Right to recourse
 - iii. Right to explanation
 - iv. Right to repair
 - v. Right to accessibility
 - vi. Right to expression
 - vii. Right to accountability
 - viii. Right to freedom of persecution
- d. The DSP Summit would identify initial policy areas and processes such as tax, trade, and IP to pilot the DSPs.

Feedback and Prioritization Platform

An annual mechanism could allow nations to prioritize by importance and promote or demote principles as technology and preferences evolve. This could involve regular government and citizen surveys on national and global priorities. For example, an annual survey of G20 nations ranking principles in terms of priority. The feedback and prioritization platform objective are to give society a role in developing digital policy generating solidarity.

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