

# Contexts are Political: Field Theory and Privacy

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## ABSTRACT

Contextual Integrity has been adopted as framework for reasoning about privacy, as well as designing and evaluating information systems. Less widely appreciated is Contextual Integrity's social theoretic foundation, which accounts for the origin and legitimacy of information norms. Recent trends in data protection regulation, which seem to rest on a theory of universal data protection rights, raise a challenge for Contextual Integrity's foundations. Is Contextual Integrity's social theory able to articulate privacy needs in a world with pervasive information communication infrastructure (ICI)? We propose that theoretical gaps in Contextual Integrity can be filled by drawing from field theory. Field theory accounts for how social fields are the result of social skill, competition between incumbent and challenger groups, and the accumulation and exchange of multiple forms of capital. Aligning Contextual Integrity with field theory empowers it to confront information communication infrastructure not as a politically neutral technology, but as the expression of economic capital engaging in a competition over social norms.

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## 1 INTRODUCTION

Contextual Integrity (CI) is a framework that has been adopted for reasoning about privacy, as well as designing and evaluating information systems. However, recent challenges have exposed theoretical gaps in CI as it is currently resourced, demanding a more thorough account of the formation and adaptation of social contexts. The first challenge comes from within the field of CI as it finds difficulties in implementing the theory: computer scientists have been able to use some aspects of the theory well, but generally do not engage or absorb the aspects of CI pertaining to social adaptation as a source of normativity [1]. The second challenge comes from outside, as the European Union's General Data Protection Regulation (GDPR) raises new questions about universal rights to data protection to which CI does not have a ready answer. Arguably, omnibus data protection laws like the GDPR address the problem of information flows crossing inappropriately between contexts, a situation which is common in a world of widespread and relatively unregulated Information and Communication Infrastructure (ICI)

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[8]. These cross-context information flows are not easily theorized within CI.

To address these challenges, we look beneath Contextual Integrity as it is widely understood to the sociological theory in which it has its roots. Field theory, attributable to Pierre Bourdieu and Neil Fligstein among others, is sociology's explanation of social fields: settings where agents interact in social and through their social positions. Field theory is one of the inspirations for CI's account of social contexts [10] and provides more detail about the formation and adaptation of fields/context/spheres than has made it into CI research. Field theory explicitly sees fields as sites of contests of power and exchange of different forms of capital. Norms in social fields are maintained through the activity of incumbents are threatened by challenges. The social field is oriented in its purpose by the mechanics of (perhaps social and/or symbol) capital, with which participants in the field are rewarded. Rather than being a mythologized accomplishment of social past, society always contains emerging and conflicting norms in a dynamic present.

With an understanding of context expanded by field theory, Contextual Integrity can conceive of new challenges to privacy not as the accidental result of a poorly designed but politically neutral technology, but as a political maneuver to "disrupt" incumbents in traditional social fields and recenter them in a field of private business, thereby changing the social calculus of the value of different forms of capital. By understanding centralized ICI business practices as a movement to subvert other fields to the ends and norms of economic capital, CI can better parse the political stakes in privacy and design of information systems.

## 2 CONTEXTUAL INTEGRITY AND ITS CHALLENGES

Though often used as a tool for reasoning about privacy for purposes of designing technology and legal regulation, Contextual Integrity builds on an intellectual foundation of social theory. Perhaps the most widely used aspect of CI is the schemata it provides for an information norm. According to CI, information norms have a structure, with several parameters:

- The sender of the information. E.g. a parent.
- The receiver of the information. E.g. a pediatrician.
- The person who is the subject of the information. E.g. the child of the sender.
- The attribute of the subject that the information is about. E.g. medical history.
- The transmission principle, the conditions under which the information may or must flow. E.g. confidentiality.

CI predicts that a violation of an information norm will predictably be met with public outcry, and that therefore new technologies, when introduced, should be subject to scrutiny to determine if they allow any non-normative information flows. This evaluation

may lead to improved designs that improve conformity with social expectations.

While easily digestible for computer scientists, this use of Contextual Integrity brackets its account of how norms are generated and legitimated [1]. Contextual Integrity maintains that norms adhere in social contexts, which it understands to be abstract and normatively laden spheres of social expectation and activity. CI posits that spheres are self-organized around purposes, which give the social expectations therein a normative weight that transcends the choice of any particular individual. A new pattern of information flow (such as those introduced by a new technology) that violates a norm may therefore become legitimately normalized if it furthers the purpose of its context (and if it balances individual ends (e.g. saving money, enjoying good health) and broader societal values (e.g. freedom, justice), which with purposes provide a multi-tiered system of *teloi* that ground CI as a moral system.) Indeed, information norms are, in CI, unintelligible but for the expectations of the context: the actor roles available to fill the parameters of sender, receiver, and subject, the attributes that information may be about, and the possible transmission principles are all drawn from ontologies that are specific to the social sphere. I.e., an information norm regarding how doctors treat information about their patients is only sensible in a social sphere where the roles of doctor and patient are defined; it makes little sense in the sphere of financial services.

CI is therefore not so much a definition of “privacy” a term whose meaning is the site for so much essential political contest [9] as a social scientific theory that explains the way information technology interacts with adaptive social organization and, ambitiously, argues that adaptive self-legitimation provides the objective criteria for regulation information flow. In other words, no matter what “privacy” means linguistically as a matter of political contest, CI, if true, would be a framework for socially regulating information flows that is legitimate separately from the contest over “privacy”. In that sense, CI is more comparable in scope to a data protection regime legitimized by rights and the rule of law [8]. Where CI differs from the latter is its social scientific underpinnings, which are primarily sociological.

These sociological underpinnings—the definition of a social context and the way the evolution of society provides a legitimate basis for information norms—have not yet been able to make the transition into computer science research that applies CI to information system design [1]. For the most part, computer scientists steer clear of this social theory, despite its being core to the interpretation of CI—many applications of CI use “context” in ways inherited from other literatures, such as ubiquitous computing. These more limited understandings of “context” prevent computer scientists from recognizing the analytical depth that CI entails; for example, CS research using CI to design a social media environment may neglect to consider how the operator of the social media platform is bound by contextual norms. This challenge of implementation calls for new work on CI to better describe the social processes that lead to context formation and adaptation.

A second challenge to CI comes from outside the research community. European data protection regulation has extended its reach extraterritorially through the General Data Protection Regulation and the possibility of a comparable data protection (as opposed to

merely “privacy”) regime is being considered in the United States. This new legal standard is in response to changing technologies that are reshaping society on a grand scale. Whatever society’s norms are today, there is no question that information flows are now mediated by what Hildebrandt [8] calls information communication infrastructure (as opposed to the less pervasive information communication technology (ICT) that challenged privacy in earlier decades). Hildebrandt [8] further argues that the Rule of Law and the human rights animated it demand a recognized right to data protection enacted on a principle of purpose binding. While the principles of purpose binding have some resonance with Contextual Integrity, there are key differences [7].

Infrastructure (or “platforms”) raise problems for CI because by definition they underlie multiple social contexts, and CI cannot comprehend let alone condemn the notion of a cross-context information flow [1]. At a time when the most politically pressing concerns about privacy have led to new policy proposals about wholesale regulation of large technology platforms, we must confront Contextual Integrity. Does CI vindicate the US sectoral privacy law approach, which allows so much dubious commercial activity beyond the horizon of social expectation, or can CI adapt to new conditions by enriching its social theoretical commitments?

We propose that to meet these challenges, CI can draw more fully from field theory, a branch of sociology that inspired CI’s notion of context, but has its own rich scholarly tradition around it, thus equipping it to explain a broader range of phenomena.

### 3 FIELD THEORY

CI tends to see contexts as stable social structures enduring over time. The distribution of roles and norms of information flow between them are, almost by definition, robust. This stability is, by assumption, a collective good, reflective of a balance between individual ends, contextual purposes, and societal values that give it normative weight. To realize this good, society must preserve its function differentiation into spheres or contexts; the emphasis is on the eponymous integrity of these spheres.

If CI emphasizes the robust patterns of human behavior conceived as residue of a dynamic history that precedes it, field theory, in sociology, addresses the dynamism itself. In doing so, it introduces conceptual tools that have not yet been absorbed into CI. Perhaps because field theory was not developed as a moral or ethical theory, it does not assume that the norms arrived at within a social field are good for everyone involved. Rather, it attempts to be more descriptive and acknowledges how contest between different actors shapes and sustains social structure. While perhaps at first striking the CI-theorist as a repudiation of the normative weight of social structure, we see the contributions of field theory differently: as a necessary augmentation of CI’s underlying social theory that will empower it to respond to the significance of ICI and omnibus data protection regimes.

We draw on two accounts of field theory for insights here. One of the original sources for field theory is the renowned sociologist Pierre Bourdieu [4]. Bourdieu’s theories have been applied to many different social fields—ranging from boxing gyms [11] to scientific communities [3]—exposing a similar logic behind all of them. Social fields are structures around myriad forms of capital [2], including

economic capital (e.g. money, or possessions), social capital (e.g. language ability, or cultural knowledge), and symbolic capital (e.g. recognition as an author of a work). The position of social actors in the field is a reflection of the distribution of forms of capital among them, and the purpose of the field is primarily to cultivate and exchange capital.

A second account of field theory comes from Fligstein’s [5] account of “new institutional theory”, and particularly the model of fields that emphasizes how they are the site of conflict between incumbents, those actors that dominate the field, and challengers, actors with different interests that occupy niches within the field and may, through social skill, change the rules in their favor. This view of social fields insists that norms are an expression of power; if powerful people did not maintain the norms, they would be overthrown by challengers. Hence every field is organized to serve the interests of a dominant group within it. Field theory is not an ethical theory: it does not argue that any particular field is more legitimate than others. Field theory asks: who is responsible for maintaining this field, and what function does it serve for them. This is not incompatible with the ethical imperative of CI. For example, under the condition that the dominant group within various social fields is reflective of the public interest because of adequate democratic process in regulating those fields, field theory might predict a robust and differentiated liberal society. Perhaps unlike CI, field theory offers insights into how such a society might also be undermined using ICI.

#### 4 FILLING IN THE GAPS

What field theory has to offer CI is the recognition that social contexts do not easily maintain themselves naturally as a fair balance of individual ends infused by universal values. Maintaining the normative structure of a social context takes work and skill. Most often, it is a form of political work, in that it reflects the interests of a dominant group that engineers the field to produce some form of capital (economic, social, and/or cultural) or provide the site for its exchange. Therefore, when considering a context in CI, we can ask: whom does this context serve? Who would benefit if the norms change?

If contexts are seen in this way, the CI theorist may feel a loss: they can no longer claim that contextual integrity serves a “general will” of society, guarding it against politically neutral technology. However, they gain a crisper analysis of the political facts driving technological change. When a social field such as health care or the urban public square or the family home is confronted by a new technology that promises convenience or performance in return for rerouting personal information through a data center owned by a private corporate conglomerate with inscrutable obligations to their “end users”, the CI theorist can now point out that this is a form of social challenge. Whoever the incumbents of the social field in question are, they are being presented with a new set of norms that primarily serves the interests of economic capital. The latter are engaged in a skillful intervention that transform the broader societal field. [6], working in the Bourdieusian tradition, have argued that the new data economy involves a centralization of society around two new forms of capital: data, a form of economic

capital, and aggregated social position as users are represented and stratified within the data.

CI can enrich itself by positioning itself as contiguous with these broader and more politically charged sociological lenses on society. Field theory in particular, which is at the root of CI, carries many insights that have not been absorbed into CI per se. Future work would benefit for more synthesis along these lines.

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