

To argue that, under UK law, those who wish to use a database protected by database rights need the permission of the right-holder and that Satoshi Nakamoto, as the original maker, holds these rights, we must explore how database rights operate and how promissory estoppel enables Dr. Wright to enforce the original protocol. This analysis will demonstrate that database rights are exclusive to the maker, granting control over access and reuse, and that Dr. Wright's enforcement ability arises not from ownership but from reliance on Nakamoto's promise, secured under promissory estoppel.

The Foundation of Database Rights in UK Law: Exclusive Control by the Maker

Database rights in the UK, introduced through the Copyright and Rights in Databases Regulations 1997, grant protection to databases where a substantial investment has been made in obtaining, verifying, or presenting data. These rights are distinct from copyright, focusing on the structure and content of the database itself rather than any underlying data.

1. **Definition and Scope of Database Rights:** Database rights provide the maker—defined as the entity responsible for the substantial investment in structuring or verifying the database's content—with an exclusive right over the extraction and reutilisation of the database's content. According to Regulation 13 of the 1997 Regulations, database rights extend specifically to the organisation, selection, and arrangement of content, protecting the maker's investment against unauthorised use by third parties.
2. **Exclusive Rights of the Maker:** Under Regulation 16, the database right-holder has the power to authorise or restrict extraction and reuse of substantial parts of the database, effectively giving them full control over how others may interact with it. This right to authorise extraction or reuse ensures that no party can access or utilise the database without the permission of the right-holder, who retains sole discretion over such permissions. This exclusivity is core to the concept of database rights, aligning with the foundational principle that the creator of the investment-intensive structure holds the right to control and monetise it.
3. **Requirement for Third-Party Permission:** By law, any third party who wishes to access, extract, or reuse protected parts of the database must first obtain explicit permission from the right-holder. Without such permission, any extraction or reuse would be unauthorised and would constitute an infringement of database rights, enforceable under UK law by the right-holder. This requirement establishes the right-holder's control as both preventive and conditional, ensuring that the original maker's investment is not diluted through unauthorised use.

Satoshi Nakamoto as the Original Database Right-Holder in the Bitcoin Protocol

To apply these principles to the Bitcoin protocol, we assume that Satoshi Nakamoto, as the creator of the Bitcoin database, holds the original database rights. By virtue of substantial investment in developing, verifying, and arranging the protocol's structure, Nakamoto would qualify as the database maker, with exclusive control over extraction and reuse rights.

1. **Substantial Investment in the Bitcoin Protocol:** Nakamoto's creation of the Bitcoin database involved substantial intellectual and technical investment, from the protocol's initial design to its verification and implementation. Under the UK's 1997 Regulations, such an investment in organising and structuring the database meets the threshold for database rights protection, meaning Nakamoto holds the original right over extraction and reuse.

2. **Database Rights Conferring Exclusive Control to Nakamoto:** Given Nakamoto's role as the maker, UK law would recognise Nakamoto as holding the exclusive right to determine how others may use or extract content from the Bitcoin database. This includes the protocol's arrangement, block structure, and system rules, which form the database's framework. As the right-holder, Nakamoto's control extends to barring or permitting third parties to interact with the database according to its originally defined parameters.
3. **Permission Requirement for Third Parties:** Since Nakamoto holds exclusive rights, any third party wishing to use, alter, or benefit from the protocol would need Nakamoto's permission to avoid infringing upon database rights. This permission is crucial to accessing the database lawfully, as Nakamoto's status as the right-holder would allow them to dictate the terms of such use, ensuring that any deviation from the original protocol requires explicit authorisation.

Dr. Wright's Ability to Enforce Database Rights Under Promissory Estoppel

While Nakamoto holds the database rights, Dr. Wright's position does not stem from ownership but rather from reliance on Nakamoto's assurance that the protocol would remain "set in stone." This reliance is protected by promissory estoppel, enabling Dr. Wright to enforce Nakamoto's promise and preserve the integrity of the original protocol against unauthorised changes.

1. **Promissory Estoppel as a Basis for Enforcement:** Promissory estoppel, as established in *Central London Property Trust Ltd v High Trees House Ltd* [1947] KB 130, prevents a promisor from reneging on an assurance if the promisee has relied on it to their detriment. In this case, Nakamoto's assurance that the protocol would be immutable created a reliance interest for Dr. Wright, who contributed resources and commitment based on this promise. Promissory estoppel therefore functions not as ownership but as a mechanism allowing Dr. Wright to uphold Nakamoto's promise that the database would not change.
2. **Dr. Wright's Reliance on the Original Protocol:** Dr. Wright's reliance on the "set in stone" assurance means that his right to enforce the protocol's immutability is grounded in promissory estoppel rather than ownership. The doctrine of promissory estoppel, as clarified in *Combe v Combe* [1951] 2 KB 215, is defensive; it enables the promisee to uphold the promisor's commitment but does not confer any new proprietary rights. Dr. Wright's enforcement power, therefore, operates solely to ensure adherence to Nakamoto's original protocol, without extending control over the Bitcoin database in the proprietary sense.
3. **Enforcement as a Guardian of Nakamoto's Database Rights:** Dr. Wright's role under promissory estoppel is analogous to that of a guardian of Nakamoto's database rights, acting to enforce Nakamoto's original terms rather than exerting independent control. His authority to prevent unauthorised changes to the protocol arises from his reliance interest in the protocol's immutability, making him an enforcer of Nakamoto's promise but not an owner of the protocol or its database rights. This reliance-based enforcement preserves the original database framework as promised by Nakamoto, preventing deviations that would undermine the initial investment and integrity.

The Distinction Between Ownership and Enforceable Reciprocal Rights in UK Database Law

Dr. Wright's enforcement rights under promissory estoppel differ fundamentally from ownership, creating a distinct form of reciprocal right that allows enforcement of Nakamoto's promise without the power to alter or transfer the protocol.

1. **Reciprocal Rights as Enforcement Without Control:** While ownership allows the right-holder full control, including the ability to transfer or modify rights, reciprocal rights under promissory estoppel do not extend this far. Dr. Wright's position grants him the right to enforce Nakamoto's promise, preserving the protocol's integrity, but does not allow him to change or otherwise control the database independently. This aligns with the equitable principle of promissory estoppel, which enables the promisee to maintain the status quo without granting additional rights.
2. **Non-Proprietary Enforcement Rights:** As an enforcer under promissory estoppel, Dr. Wright's rights are specifically reciprocal, grounded in his reliance on Nakamoto's assurance. This reliance gives Dr. Wright enforceable rights against those who attempt to deviate from the original protocol, akin to enforcing a reciprocal agreement without proprietary claims. His enforcement capability thus functions as a specific action-based right, distinct from the full bundle of rights that a database owner would possess.
3. **Legal Basis for Enforcing Against Third Parties:** Although Dr. Wright does not hold proprietary rights, promissory estoppel provides him with a basis for enforcement against third parties who diverge from the original protocol. His reliance on Nakamoto's promise means that he can prevent deviations, ensuring that any use of the database adheres to the immutable framework. While he cannot authorise or modify the protocol, he can require that third parties comply with the original terms as specified by Nakamoto's promise, preserving the database's integrity in line with Nakamoto's control.

Practical Implications: The Permission Requirement and Dr. Wright's Role in Upholding Database Integrity

Given Nakamoto's status as the original right-holder, any third party wishing to use the Bitcoin database must obtain permission to ensure their actions do not infringe upon database rights. Dr. Wright's role under promissory estoppel reinforces this requirement, as he has the authority to prevent unauthorised alterations, preserving the protocol's intended form.

1. **Permission Requirement as Safeguard Against Unauthorised Use:** The exclusive nature of database rights means that third parties must seek permission from the right-holder—here, Nakamoto—to engage in extraction, reuse, or modification of the protocol. Dr. Wright's ability to enforce this requirement under promissory estoppel adds an additional layer of oversight, ensuring that third parties operate within the bounds of the original protocol or risk enforcement action.
2. **Role of Dr. Wright as a Reliance-Based Enforcer:** Dr. Wright's role as an enforcer of Nakamoto's protocol under promissory estoppel allows him to act as a gatekeeper against unauthorised changes. His reliance on Nakamoto's "set in stone" assurance means that he can require adherence to the original protocol, compelling third parties to either secure permission from Nakamoto or refrain from deviation. This enforcement function is limited to Nakamoto's original terms, further distinguishing Dr. Wright's rights from ownership.
3. **Ensuring Database Integrity Through Promissory Estoppel:** By enforcing Nakamoto's promise, Dr. Wright maintains the integrity of the Bitcoin database as a unified, unaltered protocol. His rights under promissory estoppel do not permit him to modify the protocol but only to ensure that its original design is respected, serving as a practical guardian of Nakamoto's database rights. This creates a unique form of reciprocal enforcement where Dr. Wright's interest is in preserving, rather than controlling, the database.

Conclusion: Enforcement Rights as Reciprocal Rights in UK Database Law

Under UK law, database rights rest exclusively with the maker—in this case, Satoshi Nakamoto—who retains control over extraction, reuse, and any changes to the protocol. Dr. Wright, however, possesses a distinct, reciprocal right under promissory estoppel to enforce Nakamoto's original terms. His role is to uphold Nakamoto's promise, ensuring that third parties obtain permission or adhere strictly to the unaltered protocol. This reliance-based enforcement right allows Dr. Wright to act as a protector of the original database framework without claiming ownership or control, illustrating how promissory estoppel can create reciprocal rights that enforce database integrity in the absence of direct ownership.