



THE INFORMATION TRUST EXCHANGE

**Trust, identity, personalization,
content and user sharing for the news industry**

Information Trust Exchange Governing Association Business Goals, Role and Structure

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This WORKING document assembles a working concept of the Information Trust Exchange challenge and solution, the ITE Governing Association (ITEGA), its proposed business structure, services and features. This document is intended to be read in conjunction with the document, “Service Features and Design Specifications,” which documents operational and technical proposals for the ITE ecosystem.

■ *Bill Densmore*

(For a specific structural governance proposal, see Appendix B)

A. THE CHALLENGE

As they move to the digital world, news organizations would like to once again be the best-possible way to receive a daily diet of information that matters. Publishers and other “content producers” also need a way to share value – to be compensated – by (a) providing to subscribers and users a gracious, permissioned environment for delivering commercial messages and through (b) dynamic, variable pricing of “atomized” bits of content, remixed into services we can’t today imagine. Now, people on the go want to efficiently access the broadest range of multimedia content customized to their needs -- in a few, simple actions, without being subjected to gaudy, unwanted solicitations. Achieving this simplicity will require the coordination of publishers, content licensors, aggregators and usage trackers, a range of stakeholders currently unfocused on this collective activity.

ITE a glance: Convenience for users

- Choice of providers
- Trustworthy sources
- Deep personalization
- One ID, multiple services
- Manage ‘personas’
- Persona/privacy control
- One account, one bill
- Subscriptions, per click

An “Information Trust Exchange” (working title) should establish consensus on minimum necessary open protocols to transfer information about users and their usage across a network (either the public Internet or some controlled subset). An ITE could facilitate emergence of an open user-data-sharing, content-sharing and payment services – either by developing the standards, or endorsing standards developed by incumbents willing to share them. It could foster continuous innovation leading to collaboration around open standards. It might focus on developing the minimum necessary protocols for enabling information commerce -- protocols which do not leave a single player in a blocking position. The Information Trust Exchange can solve problems – has value propositions -- for the public, advertisers and publishers:

- For the public, it creates the opportunity for access to lots of information resources with a single ID, password and account. But unlike proprietary services such as iTunes or Facebook Connect, the customer will be able to choose among a plurality of service providers who can compete over financial and privacy terms.
- It also creates a platform for affiliates to respond in a customized, personalized way to information requests, because it makes it possible for the user to offer their preference information when making an information request.
- For advertisers, it solves the problem of multiple identities for the same person, without them having to maintain any personally identifiable information or be beholden to one or two huge platform operators who hold master user accounts.
- For publishers, it offers the opportunity to manage and share “first-party” data about user’s interests and attributions, in a sanctioned, permissioned, transparent ecosystem. It also creates the possibility of subscription networks through background “microaccounting” for cross-site exchanges of value and payment.

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Each of these brings a large constituency of potential support and interest; each are possible in an integrated approach to the sharing of data about users and transactions. A system to do any three, strategically designed, can do the other one as a byproduct.

B. THE SOLUTION

The ITEGA premise is to define an architecture, create protocols and interfaces, and accompanying business rules. Then contractually partner with technology companies prepared to build ITE-compliant networks that share user data, content and payments. As the profit from the system is designed to go to the operators and affiliates rather than the ITE, we believe operators could feasibly finance their technology and infrastructure investment and pay network fees to the exchange.

The Information Trust Exchange, whether chartered as a non-profit association or a co-operative, would not compete with its members in news or advertising, because it is proposed not to be a direct operator of anything – rather, it will develop standards, protocols and business rules, and license operation of authentication and logging services – data exchanges – by one or more private, for-profit operators. The Information Trust Exchange, whether chartered as a non-profit association or a co-operative, would not compete with its members in news or advertising, because it is proposed not to be a direct operator of

anything – rather, it will develop standards, protocols and business rules, and license operation of authentication and logging services – data exchanges – by one or more private, for-profit operators.

The ITE service has a three-element core structure:

1. **GOVERNING AUTHORITY** – A non-stock, public-benefit, member organization which licenses operators of the ITSA Network and develops and maintains ITE rules and standards.
2. **ITA PROTOCOLS / RULES**-- A set of technical protocols and business rules which govern the transfer of specific information across the public TCP/IP network (Internet) among and between (a) diverse point-of-service (POS) devices, such as laptops, smartphones and tablets and (b) network members, including content providers (CP) and end-user service providers (USP).
3. **ITE NETWORK** -- A special-purpose network that securely transfers information among and between network members, including content providers, end-user service providers, network operators and network service providers. Operating commercially by contractors to the ITE Governing Authority.

WHAT THE “ITEGA” DOES

Without encroaching on individual franchises, the Information Trust Exchange Governing Association (ITEGA) serves as an information-industry collaborative connecting news enterprises and news consumers. It defines and governs a layer of network protocols for sharing user authentication, profile sharing, copyright payments and billing. Similar to the bank / credit-card system, the network is overseen by a non-governmental authority on behalf of private -- and competing -- parties. The ITE makes rules for the competitive exchange of both content and users' identity information.

Its role includes these functions:

1. Establish governance structure
2. Facilitate board formation, membership
3. Fund protocol, rules and standards development
4. Research, test, commission key technologies
5. Create voluntary privacy, trust, identity standards
6. Protect privacy: Anonymous, yet trusted users
7. Sanction protocols for sharing users/content and license their use
8. Sanction multi-site user authentication services
9. Facilitate web-wide microaccounting/subscriptions
10. Support “atomized” content, wholesale/retailing pricing
11. Broaden “deep web” access; not on web today
12. Enhanced-CPM, precisely-targeted marketing
13. Enable consumer choice for commerce, privacy
 - One account, one bill, one ID, purchase anywhere.
 - But no single owner of all users

Thus the Information Trust Exchange may have the potential to be a largely self-funded effort with the potential to facilitate revenues and profits for operators. Commercial entities can make their own business decisions about how much to spend to enable and connect to the network. They can't do that now is because there is no interconnect -- a private, yet public-benefit, system of unified policy, governance and sanctions. There is no non-profit exchange facilitator which, like the Internet itself, transcends any single government or enterprise.

VALUE TO USERS

- **PRIVACY:** Protect, share demographic and usage data; control over sharing
- **PERSONAL:** “Persona” yields custom information
- **CHOICE:** Many “info-valets,” price/service competition
- **RELEVANCE:** Ads more effective, direct compensation
- **CONVENIENCE:** Easy sharing, selling, purchasing of online content; one ID, one account, one bill
- **RELATIONSHIP:** A trusted partner to do business with and with which to share information.
- **EXPERIENCE:** Reduces frustration of unwanted ads / content
- **EXPERIENCE:** Better, easier access to more content

VALUE TO CONTENT PROVIDERS

- Allows them to make better use of the data they have about users.
- It doesn’t make them beholden to a few very large firms who have other interests. It equalizes the power. Because as it is now everyone is negotiating one to one in a very asymmetric way.
- This way we can deliver so many at once with a common negotiation that others will want to negotiate over.

VALUE TO PLATFORMS (Apple, Google, FB, HuffPost, BuzzFeed etc.)

- They don’t like the privacy negatives people have about them.
- It will still give them what they need to sell their advertising on.
- It doesn’t stop them from getting the money they need to make money on advertising.
- And it has the ability to deliver them more and better information about users.

C. TWO STAKEHOLDER GROUPS

There are two classes of stakeholders in the ITE: Those who operate the marketplace functions, and those who conduct business across the marketplace by managing users or creating and vending content.

1. NETWORK FACILITATORS, OPERATORS, CONTRACTORS

Technology and business service providers who operate ITE-sanction services under contract with the ITE, for which they pay some relative diminimus transaction- or volume-based license fee. These might include operators of the authentication and logging services, and providers of ancillary services that must interoperate with all auth and logging services. These might include financial-service firms which do settlement on records providing by the auth/logging service, as well as entities who act as authorized agents of either publishers or end-user service providers to perform business-case services on network data. These network operators will require sanctioning by the Information Trust Exchange.

2. CONTENT PROVIDERS / USER SERVICE PROVIDERS

Publishers/information service providers, and billing/subscription end-user service providers who wish to be authenticated across the entire ITE service network. Most of their cost would be payments to the tech and business-service providers of their choice (above) at free-market prices. But they would also be asked to pay an "interchange fee" based on transaction volume to the ITE, again solely sufficient to fund the ITE's governance and any necessary R&D. What they get for the interchange fee is a unique, ITE-wide identifier and the assurance they and their users will be "authenticated" globally so long as they respect the ITE clearing-house rules.

C GOVERNANCE CONSIDERATIONS

- a. Not-for-profit association, staggered board, (say, 27 seats allocated by 7 types); founding members (foundations); publishing members; technology members; public members. It can own, and partner with for-profit operating entities.

See this description: <http://www.newshare.com/wiki/index.php/Blueprint-form/>
or Appendix B to this document.

- b. One group of ITE stakeholders: Technology and business service providers who operate ITE-sanction services under contract with the ITE, for which they pay some relative diminimus transaction- or volume-based license fee. These might include operators of the authentication and logging services, and providers of ancillary services that must interoperate with all auth and logging services. These might include financial-service firms which do settlement on records providing by the auth/logging service, as well as entities who act as authorized agents of either publishers or end-user service providers to perform business-case services on network data.
- c. Another group of ITE stakeholders: Publishers/information service providers, and billing/subscription end-user service providers who wish to be authenticated across the entire ITE service network. Most of their cost would be payments to the tech and business-service providers of their choice (above) at free-market prices. But they would also be asked to pay an "interchange fee" based on transaction volume to the ITE, again solely sufficient to fund the ITE's governance and any necessary R&D. What they get for the interchange fee is a unique, ITE-wide identifier and the assurance they and their users will be "authenticated" globally so long as they play by the ITE's rules.
- d. ITE would define and govern a layer of network protocols for sharing user authentication, profile sharing, copyright payments and billing. Similar to the bank / credit-card system, the network would be overseen by a non-governmental authority on behalf of private -- and competing -- parties. The ITE makes rules for the competitive exchange of both content and users' identity information.
- e. It could raise money through grants, gifts, memberships and loans, and then contract with or acquire entities providing information-commerce operating services, realizing program-related income. The entity must be agile and unencumbered in negotiating and implementing relationships and it's fiduciary obligations must be solely to advance the interests of its members, and the public.

- f. It establish consensus on minimum necessary open protocols to transfer information about usage and charges across a network (either the public Internet or some controlled subset).
- g. It facilitates emergence of an open user- sharing and payment protocol – either by developing the standard, or endorsing an open standard developed by an incumbent willing to share it.
- h. The Information Trust Exchange, whether chartered as a non-profit association or a co-operative, would not compete with its members in news or advertising, because it is proposed not to be a direct operator of anything – rather, it will develop standards, protocols and business rules, and license operation of authentication and logging services – data exchanges – by one or more private, for-profit operators.
- i. The ITE may exercise an ultimate sanction of removing an infovalet identity service provider, or a relying party – the content provider – from the network if they are not meeting the requirements of the system. These non-regulatory sanctions is one of the reasons why the governance and ownership of the service is so critical. The cutoff decision has to be the result of well-documented interchange rules (consider Visa as a model in this regard), and the entity making the decision has to have no competitive business interest one way or the other but rather only an interest in the fair administration of the service and due regard for evolving identity and privacy rights of end users. Hence, the need for a non-governmental and non-investor-owned entity with a mission to efficiently oversee and operate a service and not profit from it. Profit is for the publishers and service providers who use the service.
- j. The ITE defines an architecture, creates protocols and interfaces, and accompanying business rules. Then contractually partners with technology companies prepared to build ITE-compliant networks that share user data, content and payments.
- k. The ITE allows and enables commercial entities to make their own business decisions about how much to spend to enable and connect to the network. They can't do that now is because there is no interconnect -- a private, yet public-benefit, system of unified policy, governance and sanctions. There is no non-profit exchange facilitator which, like the Internet itself, transcends any single government or enterprise.

D. BUSINESS REQUIREMENTS

1) Revenue Streams – Consumer direct

- a. This system as described permits a plurality of subscription packages with pricing as in a free market for digital information -- set by the service provider who holds the end-user's account, and also set by the publisher who wants pricing control over their content.
- b. Content sold at wholesale and subscriptions sold at retail -- is where the business opportunity lies -- arbitraging the cost of content against the subscription charge.
- c. At settlement time, the settlement service bundles all the clicks -- sorted by home-base of the users on the one hand and by the vending publisher on the other hand -- and determines an aggregate debit or credit to charge the home base and an aggregated credit or debit to charge the publishers (note that a "publisher" could be a brand which is paying for a user to view a commercial message). This all is done periodically -- daily, weekly, monthly -- probably

weekly in prototype -- across the bank ACH network.

- d. The home base gets these bundled log reports and is free to sort them or use them as they wish (subject to their terms of service with the end user as to usage and privacy protection or not); in some cases there may be a discrete charge or payment to the end user for a particular access; the home base will use the click-stream reports for demographic, marketing and business-model analysis but the end user will merely be paying a monthly subscription for some class of service.
- e. The publisher (or information service provider), also gets bundled log reports of total usage so they can audit their payment or receipts, and the only sorting they are capable of doing is by the source of the end-user (i.e., their service-provider ID). Conceivably they might have methods to associate these anonymized usage reports to specific users, but the ITE would be in the business of making business rules governing this practice and the rules would be enforceable by anything up to the ultimate sanction -- cutting the offending information service provider off the system.
- f. It also creates a platform for affiliates to respond in a customized, personalized way to information requests, because it makes it possible for the user to offer their preference information when making an information request.
- g. For publishers, it creates the possibility of subscription networks through background “microaccounting” for cross-site exchanges of value and payment.
- h. The ITSA infrastructure takes care of all the accounting needed to get the payment from the consumer to the original content owner (or the payment from the advertiser to the end-user’s service provider) with all of the intermediaries along the way getting their pre- agreed-to cut.

2. **Revenue Streams -- Advertising / “advisortising”**

- a. For advertisers, it solves the problem of multiple identities for the same person, without them having to maintain any personally identifiable information or be beholden to one or two huge platform operators who hold master user account.
- b. Create online advertising exchanges to work in milliseconds with demand-side and sell-side platforms to match willing advertisers with willing publishers and aggregators to deliver “impressions” to interested consumers. Prices range dramatically, as do the content and form of the advertisements.
- c. Establish a process for wholesale and retail pricing. The retailer – your preferred publisher or service provider – is responsible for billing you and paying for what you buy from his or her store. Then, they go pay the originating publisher – the wholesaler – for the items you purchased -- to make up your personalized information bundle. The originating publisher, if it knows something about you, might vary the offer (price and terms). Your home-based publisher, the retailer, might chose to give you some of the items as part of a package, and ask you to pay for other pieces a la carte.

3. Marketing strategy / B-to-B and B-to-C

- a. TThe ITE will license for-profit affiliate members who will provide services to seed the network in the publishing space.
- b. An important design criteria for the protocols – nothing should stop a participating affiliate or publisher from continuing to operate within their silo. The ITE protocols have to be additive to these businesses -- a way for them to expand from their three-party services into a true four-party trust network.

4. Privacy/demographics/identity

- a. If a publisher chooses to become a service provider, then they get access to all of the activity of their OWN users across the network, giving them, in effect, "First Party" data vastly broader than they have access to today -- but only for those people they have account relationships with. This provides a hook for accountability as to use of personal data, and a hook that can be audited by the ITE administration if necessary.
- b. ITE protocols define, use/ownership/custodianship of personally-identifiable information (PII)
- c. There may be a plurality of home-base account managers in the service (as their are thousands of home bases in Shiboeth/Internet2), providing end users a high degree of choice regarding business terms, especially as to identity and privacy.
- d. Protocols describe framework for valuing exchange of personally identifiable information.
- e. Create a framework for rules (example: [OECD Privacy Principles](#))
- f. Enable multiple ways to create personalization of content preferences including a mixing and matching between inferred and expressed preferencing.
- g. The ITE protocol would create the opportunity for a new kind of entity which would help consumers manage their personas across a variety of information services – some paid and some that pay, or reward. The success of all kinds of loyalty programs are a proof-of-concept for this kind of information persona management.
- h. Allow the transfer of that personalization information across multiple services and uses, so your persona is not siloed in one place and is able to be shared across the web as much -- or as little -- as you choose.
- i. It creates the opportunity for access to lots of information resources with a single ID, password and account. But unlike proprietary services such as iTunes or Facebook Connect, the customer will be able to choose among a plurality of service providers who can compete over financial and privacy terms.

- j. The notion of a network with millions of personas – distributed, but shareable with user consent -- could be enabled by an ITE that establishes opt-in rules and protocols. These would permit thousands of “information valets” – or identity service providers -- to operate as competing, trusted brokers, agents, advisors or curators of information for consumers. These are places where you can lodge your persona – or one of your multiple personas. You might have one persona with your health insurance, another with the social-security administration, another with your news purveyor, you might have another with a particular retailer and one with your bank or financial-service provider.
- k. The only thing the network protocols might specify is a common set of rules for exchange of persona attributes -- rules within the control and purview of the consumer and enforceable by the ITE.
- l. Provide web/mobile users with absolute control over a digital identity with respect to accessing, sharing and purchasing news and information content, and other users.
- m. Information about end-user identities are known only to the end-user’s service provider (USP). The network system only knows users by a standardized unique alphanumeric identifier. Financial information and content access are protected by impenetrable security measures accompanied by extra strong encryption, thus protecting them from external disclosure as well as internal disclosure.

5. **Content support**

- a. Enable web users to access, share, sell or buy paid content from multiple sources by means of a secure account with a single ID, password, account and bill. (Higher tiers of authentication might be added later and would involve collaborations within the health-care industry, banking industry and government, among others.
- b. Create a news social network that operates through news and information content web sites at all levels from local to international.
- c. Create a means to deliver contextually-relevant content recommendations to network members.
- d. Provide easy, low-cost, copyright-respecting access to “Deep Web” and other content stored behind pay, registration, membership and once-proprietary barriers.
- e. Enable the delivery of precisely-targeted advertising and other commercial content relevant to a reader’s expressly shared demographic profile, social networking connections, ad content preferences and browsing history.
- f. Enable a system allowing site users to earn cash or rewards for engaging in a variety of potential interactions with commercial entities.

The end user becomes a subscriber to an individual exchange member’s news service and from then on the consumer can access any content in the exchange’s repository or on the servers of other exchange-member content providers.

E. KEY FEATURES OF SERVICE

System attributes:

- A. Visa/telco analogy
- B. Some specific system elements
- C. Two stakeholder groups

The ITE protocol would create the opportunity for a new kind of entity which would help consumers manage their personas across a variety of information services – some paid and some that pay, or reward.

If a publisher chooses to become a service provider, then they get access to all of the activity of their OWN users across the network, giving them, in effect, "First Party" data vastly broader than they have access to today -- but only for those people they have account relationships with. This provides a hook for accountability as to use of personal data, and a hook that can be audited by the ITE administration if necessary.

1. System tracks all clicks (that involve value exchange) in background, aggregating them, settling aggregated value exchange.
2. Each user service provider gets clickstream data about their users which it can use subject to Terms of Service with the end user. Their TOS is auditable and enforceable by the ITE as a condition of system membership.
3. Publishers (content providers) do NOT get identifiable information about any user (at least not from this system); they just get assurance that the person is authorized to view the resource requested and that, if money is involved, the money is going to be handled and they will get or give what they expect.
4. This does not stop publishers from setting their own cookies or doing other things to identify users, unless or until the Information Trust Exchange prohibits such behavior as a condition of membership.

Analogous to Visa/MC or phone companies?

What is proposed is similar in some respects to the Visa/MC model, but in one key way it is more like the way the phone companies settle their calling traffic -- they settle aggregated debits/credits among each other based on numbers of calls exchanged -- but their consumer customers may be paying for minutes in bulk. The system tracks every call because that is necessary even to provide unlimited calling packages to the public. This system as described permits a plurality of subscription packages with pricing as in a free market for digital

information -- set by the service provider who holds the end-user's account, and also set by the publisher who wants pricing control over their content.

Where those two come together -- content sold at wholesale and subscriptions sold at retail -- is where the business opportunity lies -- arbitraging the cost of content against the subscription charge. Actually that's the same thing newspapers did -- arbitraging the cost of syndicated content, wire service and original reporting and advertising production costs against what was charged advertisers and subscribers. It seems simple and obvious today because it settled out over a 100 years or more. It's what every business figures out -- how to mark up your ingredients to make a profit at retail. We simple have to work out the arbitrage in this new world. This system provide the mechanics; the arbitrage is up to the market. *(For more on the idea of wholesale/retail, see Appendix A)*

So in this system, Big Brother is blind for other than session authentication and billing purposes.

F. SPECIFIC ELEMENTS OF THE SERVICE

Operating principle

If your enterprise want to "own" and get data about a user, you have to maintain an account relationship with them which makes you accountable both to that user/subscriber and to the ITE's rules. Otherwise, they are anonymized to you as a content-vending publisher or "presenter." You know only their service class, their home-base service provider and perhaps some other attributes shared on a "permissioned" basis.

Operating features

- 1) Every click across the network that involves an exchange of value (a payment for an article or a reward for viewing or doing something) is logged to an authentication and logging service, which is seen by the system participants as a "central shared service" although in network practice it may be distributed and hierarchical as with DNS.
- 2) The logging service knows the user only by a unique alphanumeric identifier supplied by the user's "home base" at the start of that particular session. As a matter of policy, the logging service shall not sell or provide clickstream data to ANYONE and provides it only to the user's home service provider for their purposes (and for audit purposes to the publishing content provider if

So in this system, Big Brother is blind for other than session authentication and billing purposes . . . If your enterprise wants to "own" and get data about a user, you have to maintain an account relationship with her which makes you accountable both to her and to the ITE's rules.

requested). The identifier -- to anyone other than the home base itself -- reveals nothing more than the identity of the user's home base.

- 3) There may be a plurality of home-base account managers in the service (as there are thousands of home bases in Shibolet/Internet2), providing end users a high degree of choice regarding business terms, especially as to identity and privacy.
- 4) At settlement time, the settlement service bundles all the clicks -- sorted by home-base of the users on the one hand and by the vending publisher on the other hand -- and determines an aggregate debit or credit to charge the home base and an aggregated credit or debit to charge the publishers (note that a "publisher" could be a brand which is paying for a user to view a commercial message). This all is done periodically -- daily, weekly, monthly -- probably weekly in prototype -- across the bank ACH network.
- 5) The home base gets these bundled log reports and is free to sort them or use them as they wish (subject to their terms of service with the end user as to usage and privacy protection or not); in some cases there may be a discrete charge or payment to the end user for a particular access; in the vast majority of cases, one supposes, the home base will use the click-stream reports for demographic, marketing and business-model analysis but the end user will merely be paying a monthly subscription for some class of service.
- 6) The publisher (or information service provider), also gets bundled log reports of total usage so they can audit their payment or receipts, and the only sorting they are capable of doing is by the source of the end-user (i.e., their service-provider ID). Conceivably they might have methods to associate these anonymized usage reports to specific users, but the ITE would be in the business of making business rules governing this practice and the rules would be enforceable by anything up to the ultimate sanction -- cutting the offending information service provider off the system.
- 7) The provision for non-regulatory sanctions is one of the reasons why the governance and ownership of the service is so critical. The cutoff decision has to be the result of well-documented interchange rules (consider Visa as a model in this regard), and the entity making the decision has to have no competitive business interest one way or the other but rather only an interest in the fair administration of the service and due regard for evolving identity and privacy rights of end users. Hence, the need for a non-governmental and non-investor-owned entity with a mission to efficiently oversee and operate a service and not profit from it. Profit is for the publishers and service providers who use the service.

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¹ -- Document source, Aug. 5, 2015 email from Roger Gafke to Bill Densmore

APPENDIX A

PRICING – WHOLESALE-RETAIL

A frequent question posted by interviewees involves pricing. If news organizations are going to share users, and share content, who is going to be in control of pricing? (See *Exhibit O*) The answer: No one person or entity. Some examples:

- Airlines benefit from a common air-traffic control system and they share airports. They fly similar aircraft made by the same companies. But they compete on pricing, many routes, and most aspects of service.
- Thousands of companies float their stock on major exchanges. The price of their stock is subject to near absolute competition for investors' dollars. Yet they also use common bidding, trading and settlement systems.
- Online advertising exchanges work in milliseconds with demand-side and sell-side platforms to match willing advertisers with willing publishers and aggregators to deliver "impressions" to interested consumers. Prices range dramatically, as do the content and form of the advertisements.

When you click on that article as a *New York Times* user, the exchange should record a payment to *Le Figaro* of five cents and record a charge to *The New York Times* of five cents. But whether you as a consumer ever pay anything other than that extra \$1 - - ought to be up to *The New York Times*.

As the profit from the system is designed to go to the operators and affiliates rather than the ITE, we believe operators could feasibly finance their technology and infra-structure investment and pay network fees to the exchange. Thus our premise is that infrastructure and other startup costs born by the ITE manager will be less than \$2 million. "The thing is if you get this up and going one could actually turn to venture capital firms to expand the market once the idea is well put together," says Robert Picard, of the Reuters Institute. "That is not an impossible idea. The infrastructure that goes behind it could be completely commercial. It could be newspaper and news organizations or media investors."

But what if you added to the mix the idea of wholesale-retail pricing, just like in the real world? If General Electric Co. makes a toaster oven and sells it to Wal-Mart Stores Inc., Wal-Mart then decides how to price the toaster. Think of the Internet market for information as like a Wal-Mart store. The retailer – your preferred publisher or service provider – is responsible for billing you and paying for what you buy from his or her store. Then, they go pay the originating publisher – the wholesaler – for the items you purchased -- to make up your personalized information bundle. And imagine, as with the advertising exchanges, that this happens instantly. The originating publisher, if it knows something about you, might vary the offer (price and terms). Your home-based publisher, the retailer, might chose to give you some of the items as part of a package, and

ask you to pay for other pieces a la carte. Unlike Wal-Mart, the inventory of a digital information retail store doesn't need to be shipped or stored in bricks-and-mortar fashion. It can be sought, priced, sold and consumed in milliseconds.

All that's needed to make such a system work is a standardized method – a set of protocols – for exchanging information about users and logging -- to a common place -- the cost of what is purchased. A useful feature might be the ability to aggregate many small purchases that are charged periodically – making efficient use of financial-transaction networks like the bank [Automated Clearing House](#) (ACH) networks and avoiding relatively steeper credit-card interchange fees.

Imagine this scenario: *The New York Times* might send you an email and say for an extra \$1 a month, you get 10-15 clicks per month from a set of French language publications. It's just \$1 a month and you'll have that Francophile bonus. What would happen when you click to an article at *Le Figaro*? They would have some price they had set on that article – maybe it is five cents (converted from Euros). When you click on that article as a *New York Times* user, the exchange should record a payment to *Le Figaro* of five cents and record a charge to *The New York Times* of five cents. But whether you as a consumer ever pay anything other than that extra \$1 -- ought to be up to *The New York Times*.

If you have a system where the parties on a business-to-business basis agree to pay the cost of people surfing within the system, then all it becomes is a strategic business exercise how much *The New York Times* should charge you per month. *The Times* might do this for awhile and find they are losing money by just charging you \$1 a month, so they might come back to you and raise the package to \$2 a month. Or maybe it has a cap on it of 30 clicks per month -- then you have to pay more.

One can't presume to guess how all those things will work out. What we need to create is a system that enables all of that and then allows the free market to operate as it does so well -- which is to have pricing and packages find their equilibrium. What is described is a free market for digital information – a [economic libertarian's](#) delight! But don't we need to start by enabling those kinds of capabilities?

Apple is not going to play in a new ITE ecosystem if that ecosystem requires the company to shut down the iTunes store or alter how it operates. Ditto with Amazon and with Facebook Credits and Connect. The ITE protocols have to be additive to these business – a way for them to expand from their three-party services into a true, four-party trust network.

APPENDIX B

CONCRETE IDEAS ABOUT THE CORPORATE STRUCTURE, OWNERSHIP AND GOVERNANCE OF AN INFORMATION TRUST EXCHANGE

from: <http://www.newshare.com/wiki/index.php/Blueprint-form>

A. Formation

This section describes the proposed corporate form, ownership and governance of an Information Trust Exchange (ITE).

Mission

The mission of the ITE is to (a) sustain and advance the values, principles and purposes of independent journalism in and for participatory democracies worldwide and to (b) own, manage, oversee, operate or license products and services related thereto.

Dissolution

ITE is governed by a non-stock association. It is owned by its membership, whose interests may not be divided or sold except pursuant to the bylaws and whose assets, upon dissolution shall be contributed to charitable or education institutions in furtherance of journalism in conformance with the laws of its state or incorporation.

Business Location

Until at least 2020, ITE shall have as its principal place of business any location in the United States of America. At least until then, it's principal place of business shall be Columbia, Mo., at the Donald W. Reynolds Journalism Institute, or a U.S. location otherwise approved by the Reynolds Journalism Institute.

B. Membership

Any individual may apply to join the Information Trust Exchange upon payment of annual dues established by the Board of Directors and approval of their membership application by the Board of Directors. Membership may be withheld by the board in its discretion for any lawful reason. Members shall be entitled to attend and vote at any Annual or Special meeting called by the Board of Directors or by petition of at least one-third of the membership. The names, membership class citizenship and mailing addresses of each and all members shall be public and available to all members. The ITE shall at least annually prominently publish to the public the names of all members and their classes, along with aggregate information about the change in size and composition of each class.

Establishing dues

Until Jan. 1, 2017, changes in dues and any changes in the privileges and benefits of membership shall be approved by a two-thirds vote of directors then voting at a duly called meeting.

After Dec. 31, 2016, changes in dues and any changes in the privileges and benefits of membership shall be approved by a two-thirds vote of members then voting at an annual or special meeting called with at least 90 days public notice by mail or otherwise.

Member classes

No entity shall be admitted to or removed from any class of membership in the ITE other than by a two-thirds vote of Board of Directors voting at a duly called board meeting.

There shall be the following classes of membership:

Class A – Founding Members

The table APPENDED AT THE END OF THIS DOCUMENT shows seven classes of membership, the maximum number of board seats allocated to each, and the initial and permanent terms of each seat. No change in classes, terms or number of seats allocated thereto shall be approved other than by a two-thirds vote of the entire membership cast by ballot or at an annual or special meeting called with at least 90 days mailed public notice. ([DOWNLOAD PDF VERSION OF TABLE](#))

The following entities and/or individuals shall constitute the initial founding membership of the Information Trust Exchange with the standing term, and initial term of appointment to the Board of Directors for an individual nominated by the entity shown before each name.

NAMES TO COME

The Founding Membership may be enlarged from time to time or at any time as may be elected by unanimous consent of directors of ITE voting at a duly called meeting. However, the original seven members shall always have the right and obligation to nominate individuals to their apportioned board seat.

Class B – Publishing Members

Any non-governmental individual or entity whose interests or business consists in substantial part the creation of original works of journalism, art, literature, news, and entertainment in whatever form.

Class C – Contributing Member

Any individual or entity, including governmental, which maintains regular account relationships billed at least monthly, all of whose customers are technically capable and permitted to participate in an Internet-based shared-user networked owned or operated by ITA for, among other purposes, management of user-centric demographics and exchange of value for information services and products.

Class D – Technology Members

Any individual or non-governmental entity whose principal business includes the providing of technical products or services which generally support or enable public networks and forms of participatory democracy.

Class E – Participating Members

Any government, public, charitable, trade, educational or business organization which has a substantial interest or participation in the mission and affairs of the ITE and does not qualify as a Founding, Publishing or Contributing Member.

Class F – Supporting Members

Any individual not otherwise encompassed by the previous classes who wishes to support the mission and operations of the JTA.

Class G – At large members

An individual member designated by a two-thirds vote of the Board of Directors for the purpose of qualifying the designee to hold an at-large seat on the Board of Directors.

C. Board of Directors

All the affairs of the ITE shall be governed by a Board of Directors, which shall appoint by election all officers and principal managers. The board shall have the powers customarily vested in an association board by law or precedent.

Officers: Election by Board

The Board of Directors shall initially consist of one individual designate by each of the Founding Members which together shall elect such officers as may be required by law or otherwise deemed appropriate. An officer need not be a director and all officers shall serve at the pleasure of the board. After their initial terms, Founder Members shall have no explicit right of representation on the Board other than as elected by all Founding Members voting as a class.

Board expansion

The Board of Directors may be expanded by its initial members as its initial members deem prudent, in the classes and maximum numbers set forth in the table below. In making appointments the board shall as far as is reasonably possible seek to maintain a ratable balance of occupied seats equal to the ratios of the maximum number of seats for all classes.

Board nomination

Within each class the membership, except for Class G – At Large, members may meet from time to time or at any time and adopt rules for nominating individuals to fill seats on the Board allocated to that class after the seat has been initially filled by the board. The rules for nomination and election of classes of directors shall be approved by the full board before taking effect. The affirmative votes of two-thirds of directors voting at a duly called meeting shall be necessary to confirm a nomination to the board. In the event of a vacancy by resignation, death, incapacity or impeachment, the board shall immediately name a qualified replacement to serve the remaining term or until the affected membership class can meet and nominate a replacement. Any board member may be impeached and ejected from his or her seat by the affirmative votes of at least 75 percent of the board, upon grounds established by the board.

Limitation on service

Any individual who has served more than one term on the Board, or more than eight years continuously, whichever is longer, shall be ineligible for further service.

International representation

After Dec.31, 2017, at least 25% of the then-sitting Board shall be non-U.S. citizens. After 2021, at least 45% of the then-sitting Board shall be non-U.S. citizens. Should the election by a class of membership of an otherwise-

qualified representative to the board place the board outside of this mathematical requirement, the Board shall refuse to seat the representative and the membership of the class shall accept the Board's judgment and nominate another representative.

D. Operations – the Operating Company

At the discretion of its board, the Information Trust Exchange may cause to be formed, or shall acquire ownership in an Operating Company ("Operating Inc.") Operating Inc. might be a regular C-corp, or an L3C, with a mission similar to the mission of the Information Trust Exchange -- to sustain the values, principles and purposes of journalism in and for participatory democracies worldwide. Any goal of profit maximization shall be treated as subsidiary and subservient to this mission once initial capital necessary to build the service has been returned. Operating Inc. shall achieve this, among other means, by facilitating through ownership, operation or licensing an Internet shared-user network for individual-centric demographic management and exchange of information value.

Operating Inc. ownership

Operating Inc. might have two classes of stock as follows:

Class A – Voting

One-hundred percent of the Class A voting stock shall at all times be held by the Information Trust Exchange and be controlled by vote of the ITE's board of directors.

Class B – Non Voting

Class B stock shall have at least all of the rights, privileges and obligations of the Class A stock, except that it shall have no voting rights for any purpose except dissolution or sale of substantially all assets, and only if such right is required by law.

Class A exceeds one-third

The Class A voting shares authorized or issued shall at all times exceed 34% of the total shares outstanding. The sale or dissolution of Operating Inc., or a change in its bylaws, shall by law, regulation or bylaw require a vote of two thirds of all shares required to be voted, or at least 100% of the Class A shares, whichever is greater.

Preferential dividends

The Board of Directors of Operating Inc. may in its discretion agree to provide preferential dividend rights to Class B shareholders, subject to approval of Class A shareholders, and likewise may provide to bond or debtholders rights of conversion to Class B stock, so long as the total of all such rights outstanding would not cause to be exceeded, if exercised, the requirements of the paragraph above, entitled, "Class A exceeds one third."

General Powers of Operating Inc.

Operating Inc. shall be organized with all of the customary powers of a U.S. domestic stock corporation. It will be constituted such that it can:

- Sell Class B stock to one or more individuals or entities who have been appropriately advised of the special values and purpose of Operating Inc.

- Accept loans from individuals or other entities, including foundations with specific program-related requirements for investment who have been appropriately advised of the special values and purposes Operating Inc.

Invested capital or loans will be used to fund the technical and other startup costs of the Operating Inc. service, which service shall be owned or controlled by Operating Inc., either directly or through exclusive license.

APPENDIX

**Information Trust Exchange Governing Association
Board Composition (concept)**

Class	Max. seats	Terms	Dues
A – Founding Members	7	1 – Four-year / initial four 2 – Four-year / initial three 3 – three-year / initial three 4 – Three-year/ initial two 5 – Three-year / initial one 6 – Two-year / initial two 7 – Two-year / initial one	Initial: \$50,000 Annual: \$10,000
B – Publishing Members	5	1 – Four-year / initial three 2 – Three-year / initial two 3 – three-year / initial one 4 – Two-year/ initial two 5 – Two-year / initial one	Initial/Annual: \$100,000 – \$1,000 depending on revenue/size formula TBD
C – Contributing Members	4	1 – Three-year / initial three 2 – Three-year / initial two 3 – three-year / initial one 4 – Two-year/ initial two	Initial/Annual: \$250,000- \$1,000 depending on revenue/size formula TBD
D – Technology Members	3	1 – three-year / initial two 2 – Two-year/ initial two 3 – Two-year / initial one	Initial/Annual: \$250,000- \$1,000 depending on revenue/size formula TBD
E – Participating Members	3	1 – three-year / initial two 2 – Two-year/ initial two 3 – Two-year / initial one	Initial/Annual: \$5,000-\$500 depending on size formula TBD
F – Supporting Members	3	1 – three-year / initial two 2 – Two-year/ initial two 3 – Two-year / initial one	Initial/Annual: \$100 TBD
G – At large members	2	1 – three-year / initial two 2 – Two-year/ initial one	Initial: Annual: