

## OUTLINE (FULL)

1. **Context:** Rapidly growing C2C commerce
  - A. Golden Age of C2C Commerce
  - B. 44.4% had experience buying online
  - C. 53.9% saying that they had bought or sold something on their mobiles
  - D. Fastest-growing sector with annual net revenue doubling between 2008 and 2013
2. **Problem**
  - A. Difficulties of Resolving Disputes in C2C Commerce
    1. Time: May take more than 30 days to solve disputes
    2. Venue: Meetups difficult to arrange rendezvous
    3. Cost: Will cost legal fees if brought to court
    4. Cross-border transaction: Governing laws may differ between seller and buyer sides
  - B. Drone Dispute Example
    1. Seller posts a second-hand drone in eBay
    2. Seller claims perfect condition of product, posts good pictures of the product
    3. Someone buys the product
    4. Upon receipt, buyer sees scratches and dents, different from the posted pictures of the seller
    5. Buyer complains to Seller (via online messaging), but the seller ignores complaints
    6. Buyer posts complaints publicly and 'shames' the seller
    7. The seller argues that he messaged the buyer that there are minor scratches prior to transaction
    8. The posts become viral and continues for weeks without any resolutions
3. **Solution**
  - A. **ADReS** (Automatic Dispute Resolution System)
  - B. **Description:** A platform that enforces smart contracts in lieu of traditional contracts
    1. Self-Execution: Rule-based process that results in self-execution of buyer-seller agreement
    2. Automatic Detection: Utilizes 3D imaging to detect product condition upon receipt
    3. Flexible Terms: For the first time, buyer is able to negotiate terms in the contract of sale in C2C e-commerce system prior to transaction
  - C. **Business Model**
    1. Commission-based model for each purchased product covered by ADReS
    2. Commission is paid for the by e-commerce site
4. **Demo/Example:** We will describe the end-to-end flow by way of example
  - A. **SELLER PERSPECTIVE**
    1. Seller goes to the ADReS app to create a smart contract
    2. Seller goes to eBay to post product
    3. Seller click "select product from ADReS"
    4. Seller posts the product in eBay
  - B. **BUYER PERSPECTIVE**
    1. Buyer browses drones in eBay
    2. Buyer sees badge "Covered by ADReS" on a specific item
    3. Buyer sees details of the item
    4. On a specific pane, the buyer sees "ADReS covered features", which are features guaranteed to have automatic dispute resolution
    5. Buyer clicks on buy the product

6. Buyer is directed to seller-buyer agreement (smart contract)
7. Buyer browses through the contract (scroll down) clicks accept terms
8. Buyer checks out
9. Buyer receives product
10. Buyer gets notification that the product status has been changed to delivered.  
Notification asks user to take the “item validation step” to be able to bring claim under ADReS.
11. Buyer is brought to the ADReS App upon clicking the notification.
12. App instructs buyer to scan / take picture of the product from preset angles.
13. Buyer is then taken to features page with checklist of features (ADReS covered features)
14. Buyer clicks validate features
15. App shows results page, with visual cognition saying that the product matches original product model
16. Buyer sees completion page “Thank you for validating the product. You are now able to bring a claim under ADReS for \_\_\_\_ days. ”
17. After 6 days, buyer finds that the drone is not working anymore.
18. Buyer launches the ADReS app and clicks the subject item and clicks “dispute”.
19. On the dispute page, the user selects from options: “the item is defective”
20. App asks buyer to scan the item (again, from preset angles).
21. App shows findings: The certain propellers are distorted on the product, which were not the same when the buyer did the first feature validation step.
22. App shows automatic dispute resolution: “Issue resolved in favor of buyer/seller.”
  1. If in favor of buyer, “Buyer entitled to refund/replacement”
  2. If in favor of seller, “Buyer is not entitled to refund/replacement”

We are at the Golden Age of consumer-to-consumer or C2C E-Commerce. 44.4% of respondents in a study had experience buying online and 53.9% of these respondents said that they had bought or sold something on their mobiles.

However, there are difficulties in bringing up and resolving disputes arising from C2C E-commerce. These difficulties include: the costly expenses associated with litigation, the length of time involved before a dispute may be resolved and the venue where the dispute will be brought especially in cross-border transactions.

Thus, sometimes, the buyer resorts to publicly shaming or bashing the seller online if the buyer is not able to secure a resolution from the seller himself with respect to a product that is not as advertised.

This is where our proposed platform, ADReS, comes into play. ADReS aims to provide a convenient, efficient, effective and inexpensive solution to certain issues that may arise when a buyer purchases items through C2C E-commerce. It is an alternative dispute resolution platform that digitally enforces the performance of a contract and automates the resolution of a select list of issues arising from a C2C online transaction. ADReS

will also allow the buyer to negotiate the terms in the contract of sale prior to finalizing the transaction with the seller.

For a dispute to fall under the jurisdiction of ADReS, the value of the dispute must be at least 200 US dollars per item.

The specific types of disputes that ADReS is able to resolve by itself are those involving the distortion of the external features of the product, the product having a missing external component, a difference in the external features of the product being sold and the product received by the buyer, the product received by the buyer being counterfeit and the failure of the buyer to receive the item purchased.

For this purpose, ADReS utilizes 3D imaging to detect product condition upon receipt by the buyer of the item and verifies the external features of the item as advertised by the seller. ADReS also integrates courier systems into its platform to utilize shipment data in the resolution of disputes.

We will describe the end-to-end flow by way of example:

From the Seller's perspective:

1. Seller uses the ADReS app to create a smart contract.
2. Seller goes to eBay or a similar platform to sell a product. In this example, the product is a drone.
3. Seller clicks "select product from ADReS".
4. The product is then posted for sale.

From the Buyer's perspective:

1. Buyer browses drones in eBay
2. Buyer sees badge "Covered by ADReS" on a specific item
3. On a specific pane, the buyer sees "ADReS covered features", which are features that may be disputed by the buyer in ADReS.
4. Buyer purchases the product
5. Buyer is directed to the smart contract
6. Buyer reviews the contract (scroll down) and clicks accept terms
7. Buyer checks out
8. Buyer receives the product
9. Buyer gets a notification from ADReS that the product status has been changed to delivered. Notification asks user to take the "item validation step" to be able to bring a claim, if any, under ADReS.
10. Buyer is brought to the ADReS App upon clicking the notification.
11. ADReS instructs buyer to scan or take photos of the product from preset angles.
12. Buyer is then taken to features page with a checklist of ADReS covered features (ADReS covered features)
13. Buyer clicks validate features
14. App shows results page, with visual cognition saying that the product matches original product model
15. Buyer sees completion page "Thank you for validating the product. You are now able to bring a claim in ADReS."
16. After 6 days, buyer finds that the drone is not working anymore.
17. Buyer launches the ADReS app, selects the subject item and clicks "dispute".
18. On the dispute page, the user selects from options: "the item is defective"

19. App asks buyer to scan the item (again, from preset angles).
20. App shows findings: The certain propellers are distorted on the product, which were not the same when the buyer did the first feature validation step.
21. App shows automatic dispute resolution: "Issue resolved in favor of seller. Buyer is not entitled to refund/replacement"