Mashups and Wisdom of the Crowd

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Mash-ups

• It uses and combines data, presentation or functionality from two or more sources to create new services.

• It produces enriched results that were not necessarily the original reason for producing the data or functionality.

• Characterized by combination, visualization and aggregation.
Mash-ups: Present State of Art

- Web applications have published APIs.
- Contributed in the evolution of social software.
- Tools are usually simple enough to be used by end-users.
Mash-ups: Types

• Data mashups
• Consumer mashups
• Business mashups
Mash-ups: Technologies

• SOAP
• REST
• RSS
• ATOM
• Service providers APIs
Wisdom of the Crowd

• Taking into account the collective opinion of a group of individuals rather than a single expert.

• Examples in practice:

  • Wikipedia where millions of people contribute to the collective wisdom.

  • Newsvine where a group of non-experts determine what news is important.
WoC: Studies


• Group performance vs individual.

• Group performance vs most competent individual in the aggregate.
WoC: Studies cont...

- Group performance vs pooled responses of the aggregate.
- Group performance vs mathematical models of performance.
Crowd-Sourcing

• It is the act of outsourcing tasks, traditionally performed in-house, to a large group of people or a community (a crowd).

• Makes use of ‘the wisdom of the crowd’.
Crowd-Sourcing: Benefits

• Lowers cost and improves efficiency.
• Payment is by results or even omitted.
• The organization can tap a wider range of talent.
• Organizations gain first-hand insight on their customers' desires.
• The community earns a sense of ownership through contribution and collaboration.
How it differs

- Traditional outsourcing: A task is outsourced to a specific body.
- Open source development: A cooperative activity initiated and voluntarily undertaken by members of the public.
Recommender Systems

• A information filtering system that attempts to recommend information items that are likely to be of interest to the user.

• Compares a user profile to some reference characteristics to predict a users likes.

• Approaches:
  • Content-based approach
  • Collaborative filtering approach.
Case Studies
Threadless

Crowd does:

• Produces concept designs
• Selects designs
• Indicates willingness to purchase
• Provides feedback and training
• Carries (almost) all risk
Threadless cont...

Company does:

• Pays for successful designs ($2000)
• Pipeline for submission, rating, selection, manufacturing and distribution
• Promotes good designers
• Goals and dreams
Apple (AppStore)

Product flaw: No software!

Like threadless, outsources risks in production to crowd, in return for:

• Marketing, distribution and payments
• SDKs (reduced contribution cost)
• Decent prob. of local fame (intrinsic motivation)
• Small (overestimated) prob. of getting rich (extrinsic motivation)
Flickr

• System needs tags for images
• Purely intrinsically motivated task
• For whom?
  • Self or public
• Why?
  • Communication or retrieval
Game Mechanics

ESP game
- Players agree on tags for images

Peekaboom
- Players locate tags in images
reCAPTCHA

- Human error correction for OCR
- Database with unknown scanned words
- Captcha with one unknown word and one previously tagged
- Spammers need to do research
Task Markets

• An emerging general solution for online paid labor
• Competitive market
• Quick and easy tasks
• Small payments
Task Markets cont...

• More payment = More work done
• Any non-insulting payment = Constant quality
• Intrinsic > Extrinsic = Higher quality
• Perceived work value > Payment
• Normal quality control is applicable


