

METAFACTION AND THE RHETORIC OF ERROR – AN APPROACH TO ADAPTIVE PERSUASIVE CONFLICT GENERATION

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With 'metaFACTION' we invent an experimental semantic tool for critical discourse representation and nonfictional storytelling. Based on our Persuasive Conflict Generation Model, we establish an adaptive documentary style to help people gain alternative access to the structure and mutations of public discourse. Paradoxically, metaFACTION makes use of an error-friendly rhetoric – on a meta-level – as a means of shaping democratic communication.

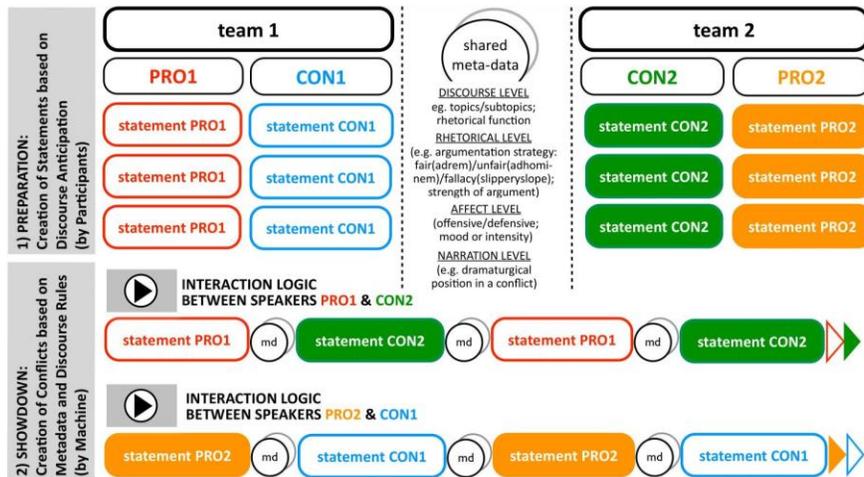


Fig. 1. Exemplary workflow of the formalisation of dialogues with conflicting viewpoints, *Meta-Dating II Persuasion, 2010, Klaus Gasteier & Daniela Kuka, Schematic representation, Copyright by the authors.*

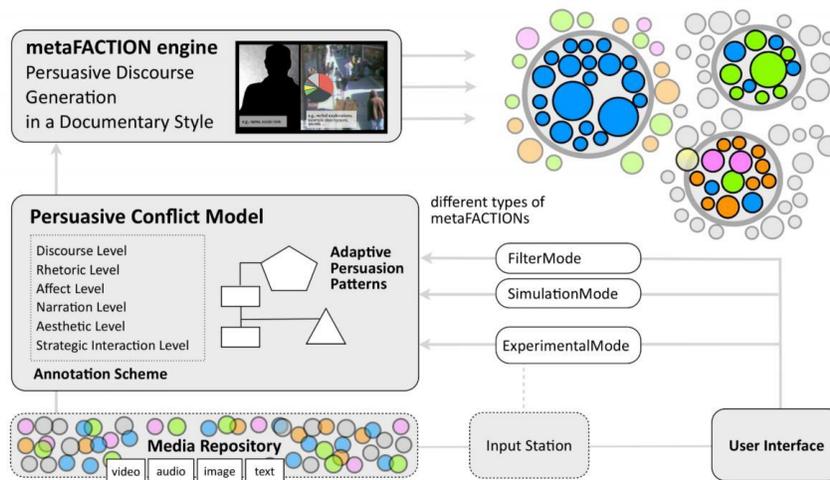


Fig. 2. *metaFACTION, 2011, Daniela Kuka, System draft design (representation of filtered versions of mF-documentary following the style of 'filter bubbles'[2]), Copyright by the author.*

Imagine we could generate informative and entertaining conflicts from digital resources of discourse such as online magazines, wikis, news portals, blogs, etc. Imagine we could receive them as personalised documentaries instead of lists of articles, references, links and comments – e.g., as simulated panel discussions, TV debates or just everyday conflicts. Imagine fragments of discourse were attracting other fragments of discourse in a dialectical manner, and they would automatically arrange as we are participating in a never-ending global conference ...

Semantic Media shape the way we produce, spread and receive public discourse. Given that discourses in digital archives and the World Wide Web are organised in a nonlinear fashion, we need to conceive of new methods and design approaches to create adaptive representations of topics of societal relevance. With 'metaFACTION' we invent an experimental semantic tool to capture, structure, and reorganise discourse fragments in such a way that informative and entertaining media products with different communicative goals for heterogeneous publics emerge. Combining structural knowledge from Automatic Video Generation, Discourse Analysis and Argument Processing as well as Story Generation with empirically validated patterns to describe natural situations of human dispute or conflict, we suggest the Persuasive Conflict Generation Model. metaFACTION, based on this model, is a conflict machine to create and present divergent and even contradictory discursive formations from a pool of annotated media fragments. The resulting conflicts are contextualised in a documentary-like genre model (documentary films as they are assumed to be persuasive) so that naturally unstructured discourse can be transformed into a semantically enhanced media experience. What is paradoxical about metaFACTION is not so much its capability to contradict itself in a plausible manner, but the targeted use of errors as a means of shaping communication.

The first two sections of the paper discuss current effects from the semantic web as they influence the vision and concept of metaFACTION. The third and fourth section describe metaFACTION with regards to its specific documentary generation approach.

A New Kind of Democratic Communication?

metaFACTION addresses a new wave of internet criticism associated with authors like Cass R. Sunstein, Jaron Lanier, Dean Eckles, and others. In 2010, Eli Pariser introduced the metaphorical term "online filter bubble" to describe how personalised search algorithms start to control how information is presented "increasingly biased to share our own views:"

With Google personalized for everyone, the query 'stem cells' might produce diametrically opposed results for scientists who support stem cell research and activists who oppose it. 'Proof of climate change' might turn up different results for an environmentalist activist and an oil company executive. [...] More and more, your computer monitor is a kind of one-way-mirror, reflecting your own interests while algorithmic observers watch what you click. [1]

What seems to establish from that is a "friendly world syndrome" with "false consensus effects," [2] a hegemonial discourse frame that is immune against critique, irritation, provocation, or alienation, but whose plausibility is always assured in advance owing to the comfortable avoidance of cognitive dissonance. Following Pariser, personalised discourse filters create an intransparent You-Loop around us, a landscape of automated censorship which, paradoxically, is both a black box and generated by our own online activities. Aggregation services and filter algorithms are challenged to cope effectively with an

existing deluge of data that has reached a level of complexity unmanageable by human capacities (cognitive, economic). But can such algorithms be neutral and democratic? They are not simply there to create order and meaning; they are always a step ahead of our decision-making faculty by autonomously selecting, weighting, and evaluating data. They simulate coherence, completeness, and context based on familiar paradigms of reception such as hierarchical, topographical, or chronological order. Behind that simulated order, a new kind of order is emerging: According to "The Order of Things" described by Michel Foucault in 1966, [3] we call it "The Order of Media" which means that there are now semantic concepts and algorithms that govern the production of knowledge and, as a result, people's understanding of the world, their attitudes and behavior.

Digistemes & Unfair Machines

Consequently, in such an "Order of Media" the authors of ontologies and algorithms become the new designers of, again in Foucault's sense, "epistemes", the rules to produce and spread legitimate truths. While semantic concepts determine if and how an object can be described to become part of an order, and if and how it can be related to other objects, algorithms determine how we can access these objects both on general and on personalised paths. This interplay builds a new set of rules to deal with scientific knowledge, cultural artifacts, news, and so on. To adequately describe this phenomenon we invent the term "digistemes". Digistemes are the self-logic of the semantic media dispositif, [4] a highly complex and intransparent set of rules that, on the one hand, allows to produce, distribute and access knowledge. On the other hand, they cause the spread of parallel universes full of zombie discourse, a hidden landscape of disordered unaccessible media fragments. An auto-persuasive human machine network is emerging, a system in which everyone is free to publish anything, but where they cannot or may not see and read everything. Which mutations of a discourse are transformed into zombie data is determined by their capability to provide relevant meta-data to sever the tentacles of semantic search. Otherwise, they remain unable to appear as part of any public discourse.

Thus, digistemes make it appear conceivable that a machine may be capable of automatically generating discourse representations on an arbitrarily chosen topic, using certain pieces of meta-information and coded discourse rules. But should the machine support every user's mindset by adjusting its discourse position to his/her profile? If we intend to use the power of semantic media technology democratically, we have to learn how to use its tools against their own logic (the creation of filtered worldviews). We have to learn how to strategically cooperate with what may be unfair machines (without even knowing if they are). metaFACTION is an attempt: By thinking errors on the meta-(information-)level.

Machine Generated Conflicts

Relevant insights for the research and development process were made possible by a pre-project "Meta-Dating". Meta-Dating is a conception and design project initiated in 2009 by Klaus Gasteier, Professor of New Media at the Berlin University of the Arts. The original idea was to generate plausible conversations about everyday topics from a pool of annotated video clips, based on a collaboratively generated meta-data scheme. Since then this evolved, now as a cooperation, into an experimental environment for non-linear persuasive communication, and a coming series of new approaches. In a team effort, students produce several hundred video clips dealing with anticipatable aspects of a controversial topic of their choice. Having agreed on meta-data that describe argumentative contents, strategies and discourse rules (later transformed to machine-readable algorithms by a programming professional), each team

splits into two subgroups which then develop content for the conflicting viewpoints (taking up both positions in the argument) in complete autonomy, cf. Fig. 1. The project moves a step beyond traditional debating contests: Each subgroup has to anticipate arguments and argumentation strategies for both the pro and con positions as well as patterns of strategic and tactical interaction between the two parties in an ongoing conflict (reaction/action). The computer program then generates the automatic debate (one version of many possible ones). While preparing the needed material the aim is not to anticipate and plan for all possible dialogue constellations, but to find a formalisation model that also supports unforeseeable turns in the final stages. The plausibility and authenticity of the course the conflict takes shows whether or not the model is working.

Persuasive Conflict Generation

To date, Meta-Dating experiments have been focusing above all on a free definition of description parameters and patterns for each project. A theory-driven modelling of argumentation or discourse structures or narration was deliberately avoided in order to simulate seemingly natural dialogues with high flexibility to test different solutions. metaFACTION builds on these experiences and introduces, in contrast to existing approaches in automatic documentary creation [5, 6, 7] and dialectical argument modelling, [8] an approach to model adaptive persuasive communication on natural conflict analysis in human communication. The following paragraphs give a short overview on the main features, cf. Fig. 2.

USER MODELS FOR NONLINEAR PERSUASION

Existing argumentation and persuasion machines do hardly consider that statements have different relevance to different users and that different ways to present a statement affect their persuasive power. metaFACTION follows a "mind opener" approach to documentary [9] combined with user models to generate persuasive mutations of discourse. On this level, we need two different types of meta-data with strategic relevance: a) Meta-data used to direct the dialectical process of two or more parties in order to create a plausible dramaturgy of conflict, e.g., institutional (expert-to-expert/expert-to-layman/layman-to-layman) and social (activist-nihilist/optimist-pessimist) relationships, modes of reaction (offensive/defensive/reflexive), strength of arguments, level of affective involvement (neutral/angry/unsettled); b) Meta-information relevant to personalisation based on user models, e.g., speakers' credibility in different contexts and milieus, speakers' similarity (optimistic/pessimistic, economist/ecologist, manager/mother), values addressed, and so forth.

NATURAL PERSUASIVE CONFLICTS

Related approaches that encode rhetorical patterns are based on formal argument and argumentation scheme modelling. [7, 8] Their insights are integrated in the Persuasive Conflict Generation Model, but we need further approaches to compensate that they create unnatural discourse structures which (1) are hard to capture from organically growing discourse, (2) cannot be used as model for the creation of a whole documentary experience, which consists of a wide range of verbal discourse and visual representations in a dramaturgically relevant order, and (3) are ignorant to the fact that human opinion-making processes do not exclusively rely on logical argumentation. In everyday life, we are affected by personal experience and emotionally intense stories, different hierarchies of values, more or less powerful opinion leaders in our community, misunderstandings, unfair rhetoric, etc. For this part, metaFACTION creates an approach to model human discourse on patterns of natural conflicts as they dominate, e.g.,

panel discussions, TV debates, or spontaneous conflicts in social contexts. Formal Models describing discourse and story structures add parameters and concepts in order to realise a documentary style that is driven by dramaturgical courses of conflict.

OPEN-ENDED PRODUCTION

The related project Terminal Time [6] encodes ideological patterns instead of formal argumentation, but it operates as closed systems. Based on transparent annotation schemes and scalable conflict rules, metaFACTION supports unmoderated peer production on topics of societal relevance. It has to be determined whether sets of meta-data can function as a universal language for micro-storyboards and/or as global stage directions so that anonymous and heterogeneous groups of authors add and annotate found footage or their own statements to create unwritten, typically contradictory, and evolving conflicts.

RHETORIC OF ERROR

Existing approaches try to avoid or minimize errors, e.g., argumentation tools that support decision-making and opinion-making processes. metaFACTION tries to generate a more experimental form of discourse representation. Human beings do not communicate in the mode of formal argumentation. Instead, social communication is context-sensitive and realised in dialectical loops which are rarely free from misunderstandings, coherence gaps, evasion and rapid shifts from topic to topic. More or less unconsciously, we bridge gaps and accept media disruptions, we oversee unfair rhetoric and fallacies, we familiarise with ruptures and lacunae as they are popularised by postmodern film aesthetics and fragmented internet communication. How could our habitual readiness to allow for errors and imprecisions of communication be utilised in a way that enables the manipulation of discourse? We suggest a sense-making false-connections approach allowing metaFACTION to repeatedly generate new arrangements of available media fragments and, therefore, also new statements without paying attention to the primary material's context or intention. Different manipulative principles of montage (known from documentary film theory) are used to build statements and clusters of statements that serve the user. The annotation schemes allow to index media fragments in such a way that they may appear in different, even completely foreign contexts (e.g., by multiple annotations on the discourse level such as science, media, politics, economy, education, ethics, medicine, aesthetics, and everyday life), and also lead to different statements when combined with other media fragments (e.g., by using bipolar fragments that change their polarity depending on their context of use (Kuleschow effect), or by omissions, by polysemy, by framed de- and recontextualisation such as quotation or parody, and by augmenting different context information). As persuasive patterns, we build on psychological and social effects in conflicts such as, e.g., "create fear," "evoke sympathy," "demonstrate authority," or "provoke moral concerns." They can be fulfilled by employing rhetorical tactics such as "quote an expert," "build a positive/negative analogy," "show great/terrible consequences," "tell a story of success/failure," "broaden the topic," "show pleasant/dissuasive example," "attack trustworthiness of counterpart," and so forth.

METAFACTION MODES

The stimulation of the user can occur in three modes. The FilterMode creates a coherent documentary that serves the user's (anticipated) mindset. The SimulationMode allows users to deliberately manipulate the persuasive logic of the engine via an interface. Users can thus playfully experience in this way

how discursive formations and resulting statements are controlled without interfering with existing content. The ExperimentalMode generates documentaries that deliberately infringe discourse and genre rules and thereby open up improbable formations for simulation (e.g., counter-discourses suppressed by mass media, untypical speaker constellations).

Outcome & Future Prospects

metaFACTION allows to simulate different kinds of persuasive conflicts. Resulting media products can be manipulative, entertaining, provoking, or just irritating. Thanks to an error-friendly rhetoric on a meta-level, metaFACTION can serve as a powerful tool for critical discourse representation and nonfictional storytelling. We suggest using the Persuasive Conflict Generation model to establish a new documentary style to help people gain alternative access to the structure and mutations of public discourse in the third generation of the Internet. We are currently working with a prototype version that is to be developed further as an online application.

References and Notes:

1. *Eli Pariser, Filter Bubbles* (London: Penguin, 2011), 3.
2. *Dean Eckles' Blog, "The 'friendly world syndrome' [...]"*, November, 2010, http://www.deaneckles.com/blog/386_the-friendly-world-syndrome-induced-by-simple-filtering-rules/ (accessed July 02, 2011).
3. *Michel Foucault, Les mots et les choses. Une archéologie des sciences humaines* (Paris: Gallimard, 1966).
4. *Giorgio Agamben, Was ist ein Dispositiv?*, trans. Andreas Hiepko, (Berlin, Zürich: diaphanes, 2006).
5. *Glorianna Davenport et al., "ConText. Towards the Evolving Documentary,"* in *Proc. of ACM Multimedia, San Francisco, USA* (November 1995), <http://dl.acm.org/citation.cfm?id=215302> (accessed July 02, 2011).
6. *Michael Mateas et al., "Generation of Ideologically-Biased Historical Documentaries,"* in *Proc. of AAAI, Austin, Texas* (July/August 2000), <http://dl.acm.org/citation.cfm?id=647288.721267> (accessed July 02, 2011).
7. *Stefano Bocconi, Frank Nack, "Automatic Generation of Biased Video Sequences,"* in *SRMC '04 Proc. of ACM Workshop SRMC, New York, USA*, (October 2004), <http://dl.acm.org/citation.cfm?id=1026633.1026636> (accessed July 02, 2011).
8. *Chris Reed et al., "Laying the Foundations for a World Wide Argument Web,"* *Artificial Intelligence Vol. 171, no. 10–15* (2007): 897–921.
9. *Michael Rabiger, Directing the Documentary* (Boston: Focal Press, 1998).