Tech Trends 2022

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Entering The AI Era
Creative Humans & Smart Machines

DEEP PUBLISHING KNOWLEDGE

Data Analytics
- Need for good Data Scientists
- Algorithms outsmarting us
- AI for unstructured data…
- A Blackbox of deep-learning Algorithms
- Humans in new places (filling up for inadequate AI)
- Business Models for Data Analytics
- AI for unstructured data…..far from being solved
- Accountability and Trust

Human-AI Collaboration
- Humans and machines collaborate for running a better process
- Increased automation/ BOTS
- AI replaces mundane jobs

Smart Services
- New metrics
- Smart contracts
- User power
- AI for peer review
- User tracking
- Performance evaluations
- Intelligent augmentation
- Personalization
- Customized information alerts
- Turing test to fake reviewers…
- Cryptocurrencies for researchers
- Recognition for peer review
- New reward systems
- Fraud detection
- Computer generated hypothesis
- Machine written articles

Intelligent Machine Reading
- Meta-prediction of citations
- AI based research design
- AI for Pharma
- Accelerate disease treatments
- Topic Modelling, topic mapping

User Oriented Publishing
- Individualized precision information
- Targeted discovery
- Accelerates research

Research Integrity
- Research Data Availability
- All Research outputs available
- Can AI help to find the flaws in science
- Metrics assessments
- Data Management Plans
- Detect fraud and error
- Open Science

Tech Takes Over
- Continuous surveillance
- The singularity issue
- Will AI be checked by AI
- Technology is not per se benign if in the wrong hands…

OPEN SCIENCE
- Early sharing
- Includes all research artefacts
- European Open Science Cloud (EOSC)

SOCIAL MEDIA:
- Cyber Influencing
- Bots warfare
- Internet Surveillance
- Citizen Science
- How to avoid fake science

EASY ACCESS
- Single Sign-on
- Transparent collaboration
- Complexity of ID Management
- Simple Business Models
- RA21

SHARING PLATFORMS
- A Spotify for Science?
- Find the Napster moment
- How to control governance
- Will it all be Google or Sci-Hub
- Complete platform integration
- Responsible sharing
- Will it all be open ?
- CHORUS

BREXIT

Research in Asia

NET NEUTRALITY

METRICS:
- New reward systems
- Measuring all outputs

GDPR:
- Will it take all development resources?
- May change marketing fundamentally
- Impact on user data analytics
- What does it do to the UX interface?

Publishing to underpin TRUST:
- Help avoid crap science
- Quality Assurance of Data

RESEARCH DATA:
- Who funds the infrastructure
- Will it bust the pipes?
- Volume is enormous
- What will funders pay for?
- FAIR Data
- Persistent ID's
- Data Management Plans

BLOCKCHAIN:
- Can Blockchain help solve the trust-issues
- Ensure Authenticity in a Network of Trust
- Is it robust and fast enough?
- Will it all be open?