

Building Consolidated IT Support for Technology-based Training (TBT)

Dr. Jackson He
Senior Application Architect
Intel Corporation
10/09/99

Agenda

- Agenda
 - TBT at Intel
 - Business Drivers for TBT
 - TBT in the context of corporate-level strategy
 - Corporate TBT support model
 - Conclusions

Training at Intel

- Intel pays a lot of attentions on employee development and customer education, every division has training departments
- Intel spent over \$300M on training in '98, actively looking for ways to extend training delivery while keeping cost under control
- Face-to-face training accounts for more than 80% of total training, however alternative training (both sync and async) is gaining momentum
- Many groups developed their own solutions, vertical and departmental solutions need to consolidate for economies of scales
- e-Business and internet make TBT external as well as internal, need more comprehensive and consistent corporate support

Business Drivers

- Keep up with business beat rate and improve productivity
 - F2F training cannot keep up technology development needs
 - Cost reduction (instructor, travel, facility)
 - Reduce redundancy and achieve economies of scale - consolidating TBT efforts and developing corporate TBT infrastructure
- Faster and Better than Competition - Time to market
 - Get to market both internally and externally quicker
 - Stay current, ability to provide 'Just in time' updates
- Enable Intel Business - Worldwide training delivery
 - Ramp-up skills and knowledge of worldwide workforce
 - Reach dispersed external customers / suppliers worldwide
 - Meet diversified training needs with different methods - not one size fits all
- Employee retention and agile / mobile environment
 - Moving employee from declining skills to demanding skills
 - Retain employees and improve their employability

APQC TBT Benchmark Study

- TBT efforts are new initiatives often developed and managed by a *centralized* group with dedicated funding
- TBT implementation needs an “enterprise” perspective
- TBT enables advances in workplace technologies and creates new opportunities for improvement
- Successful planning, deployment, and operation of TBT requires strong ties to the IT function.
- TBT requires flexible development and delivery organization strategy to scale up or down as needed
- Exploit third-party course providers with solutions whenever possible
- TBT should be highly job-relevant
- TBT is not the end-all, be-all for training needs, Mixture of face-to-face and TBT is preferred
- Asynchronous TBT has been the most successful
- Simple technology works well for TBT
- Communication and relationship management should be built into the full life cycle of a TBT product or service
- Training evaluation need to evolve to take advantage of the capabilities of the new technology environment

Training for Productivity Improvement

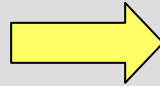


- Productivity Improvement has been a focus of Intel
- Opportunity to leverage technology based training aimed at improving productivity
- Increasing visibility and focus on KM; TBT is a tangible and actionable space in KM
- There is a window of opportunity to consolidate different training solutions and develop corporate-level strategies NOW

The Paradigm Shift

From...

- Monolithic course
- General, longer
- Linear, sequential
- One size fits all
- Absorbing material
- Teacher-centric
- Learn once during single event
- Classroom
- Mass
- Individual
- Passive learner



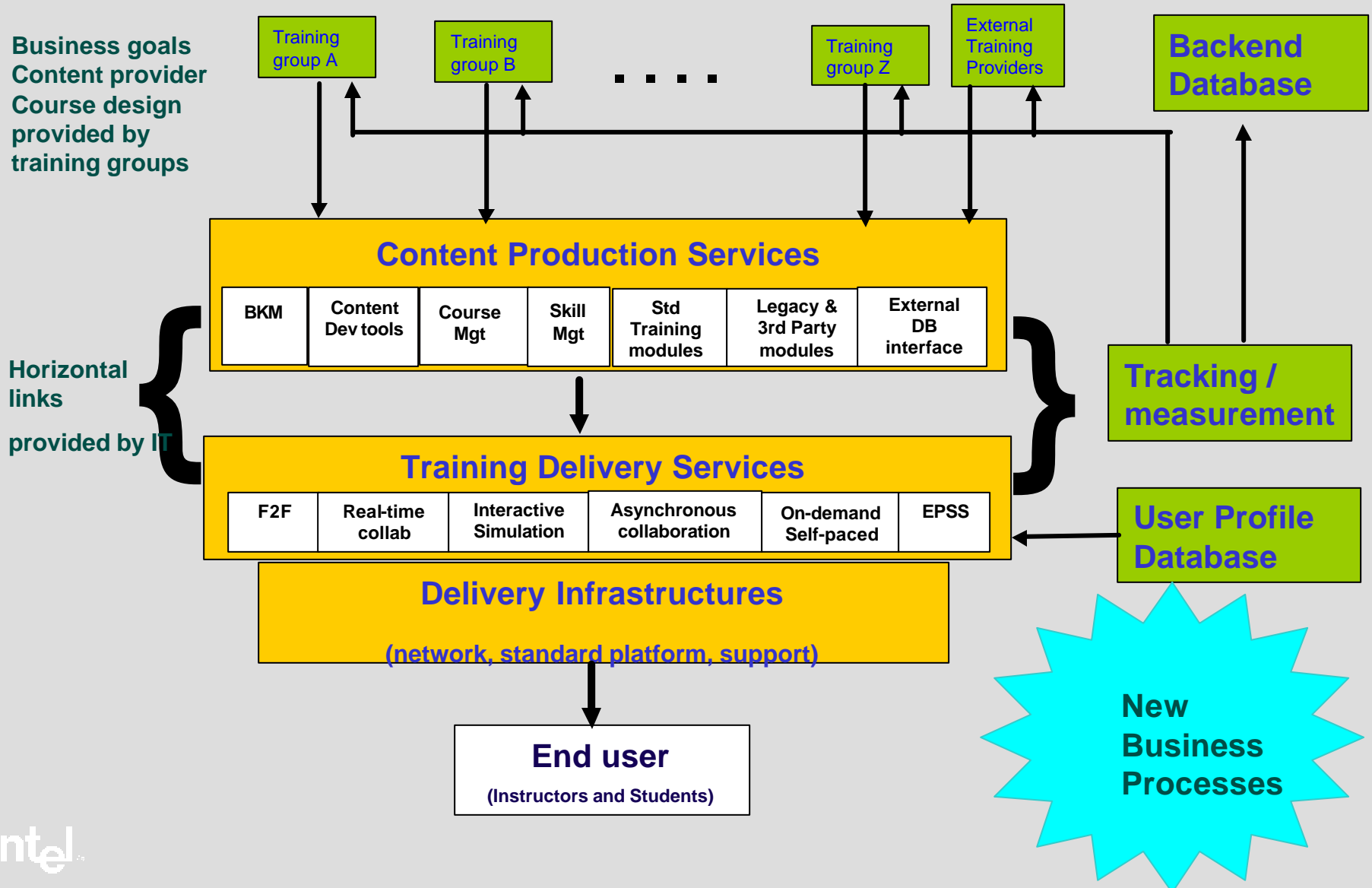
To...

- Modular, learning objects
- Specific, shorter
- Hypermedia/XML
- Individualization
- Learning how to learn
- Learner-centric
- Continuous
- OJT, JIT, just enough
- Individualized & mixed mode curriculum
- Collaborative learning
- Participant, knowledge contributor

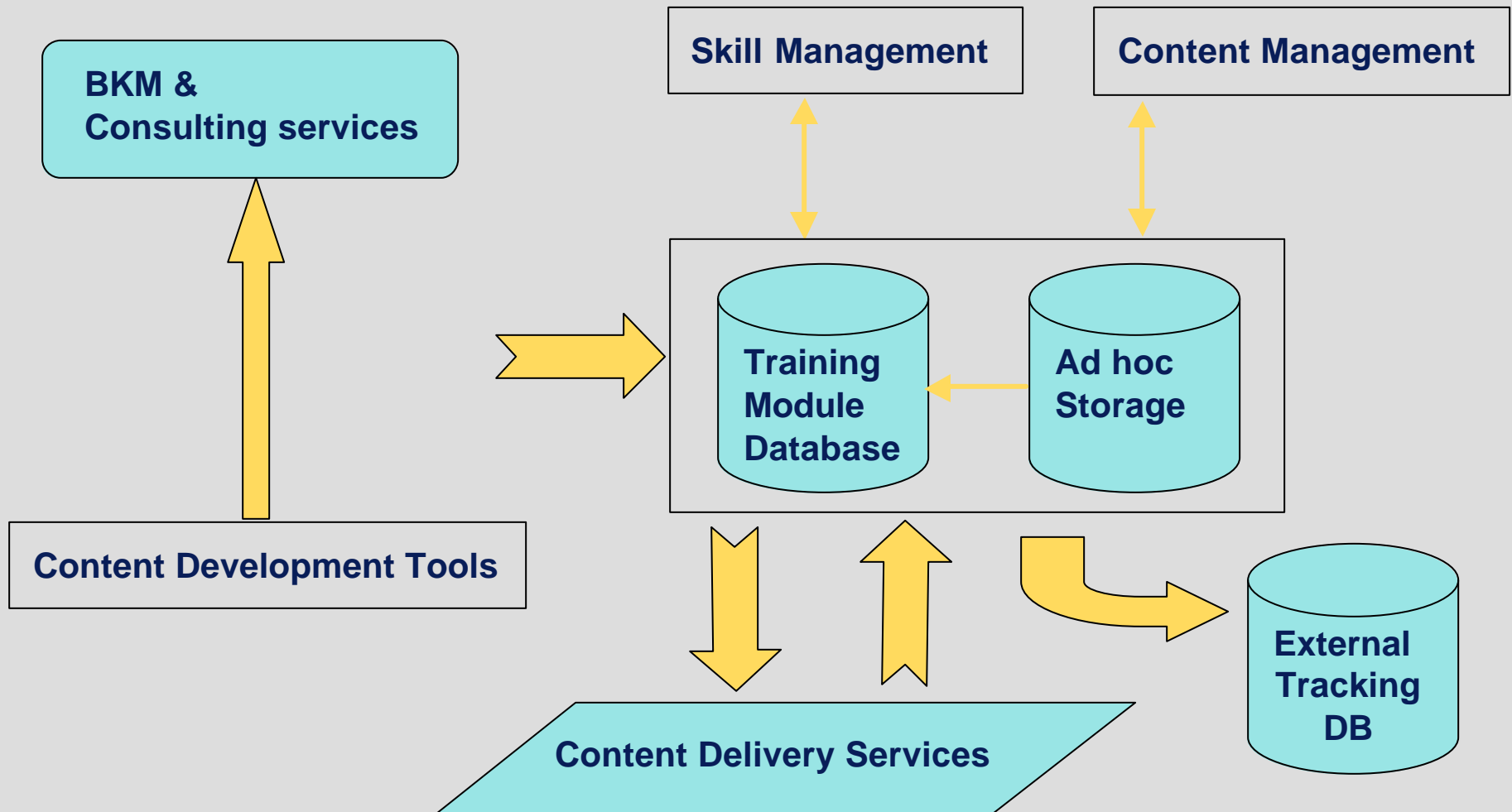
TBT Strategy

- TBT is a paradigm shift that requires to have a corporate “Employee Development System”
- IT should be the enabler to provide most appropriate methods to achieve business training objectives, scales up and down

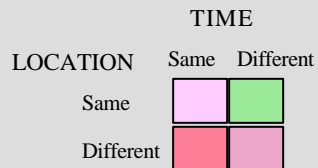
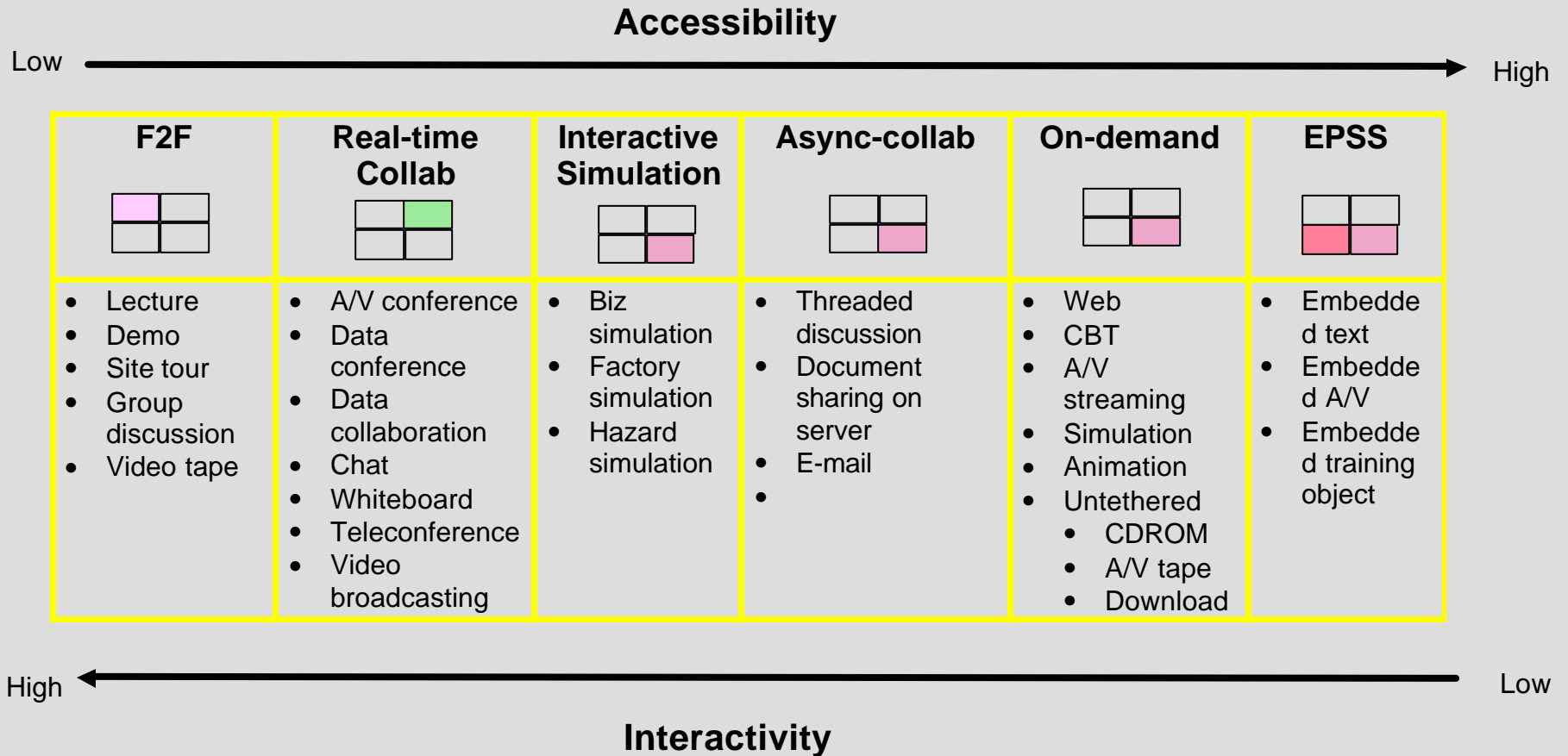
TBT Services Architecture



Content Production Services



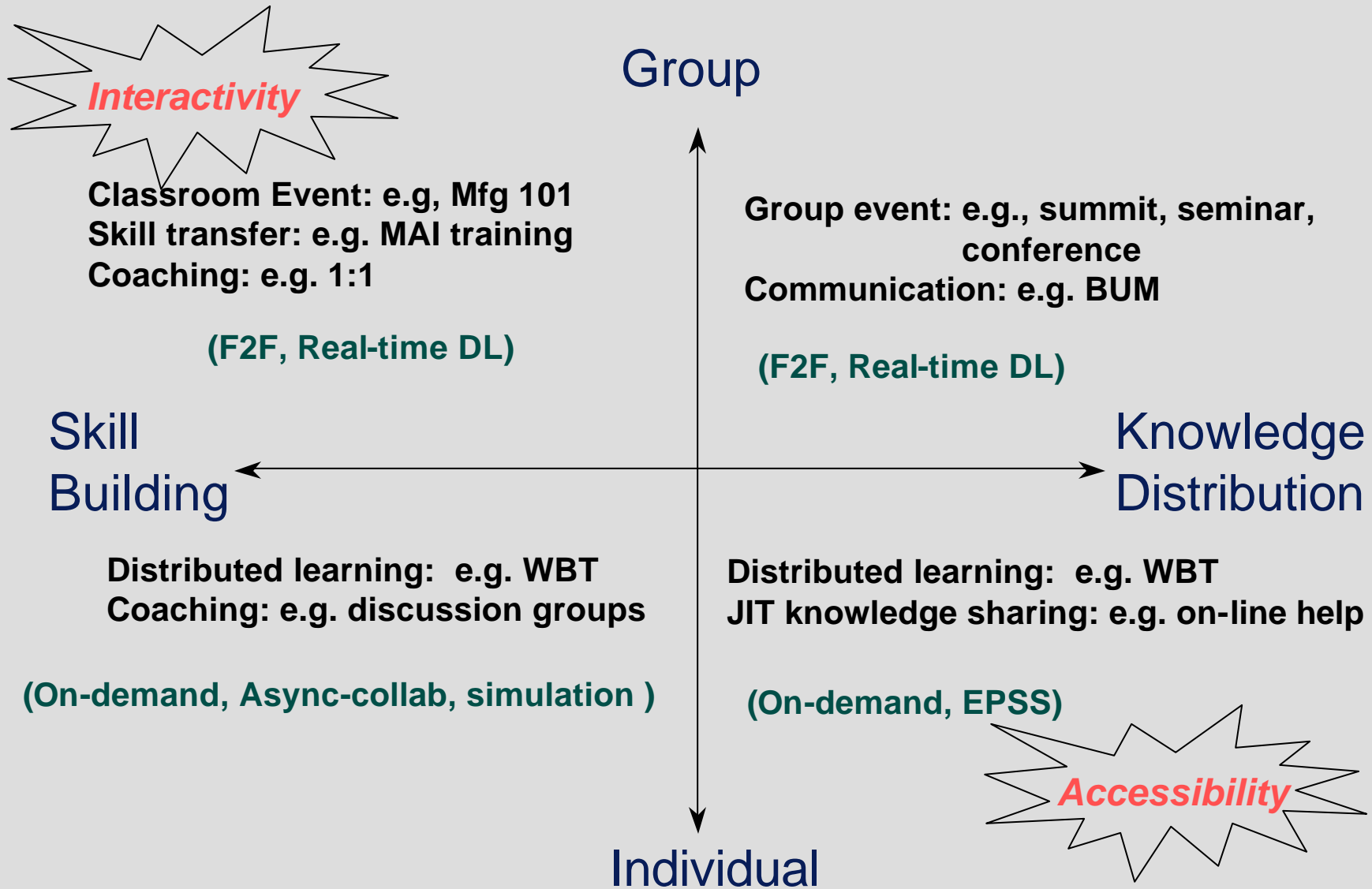
Training Delivery Services



Delivery Infrastructures

- Reliable network service and sufficient bandwidth
- Multimedia support (both broadcasting and on-demand)
- Bandwidth management (policy-based management, RSVP)
- Server support for content hosting and replication
- Customer service training applications and IUA processes

Technology Match Instructional Needs



Conclusion

- The TBT service model is reviewed by Intel training groups and management and is well accepted
 - TBT has become part of Productivity Improvement initiative
 - Web-based training (WBT) and real-time distance learning are identified as low hanging fruits
 - Research on XML, CMI, training application development, and training standards are underway
 - IT coordinated with Intel University to address administrative and operational issues relate to TBT
 - Intel-wide training groups organized training interest group (TIG) to address common technical and organization issues
- We are at the very beginning of a paradigm shift
 - Still need to show tangible ROI
 - Behavioral as well as technical changes take time to show the real benefit

Backup Materials

Definitions

- What is TBT?
 - All kinds of alternative training using technologies
 - Real-time collaboration
 - Interactive simulation
 - Asynchronous collaboration
 - On-demand content delivery WBT, CBT
 - Embedded performance support

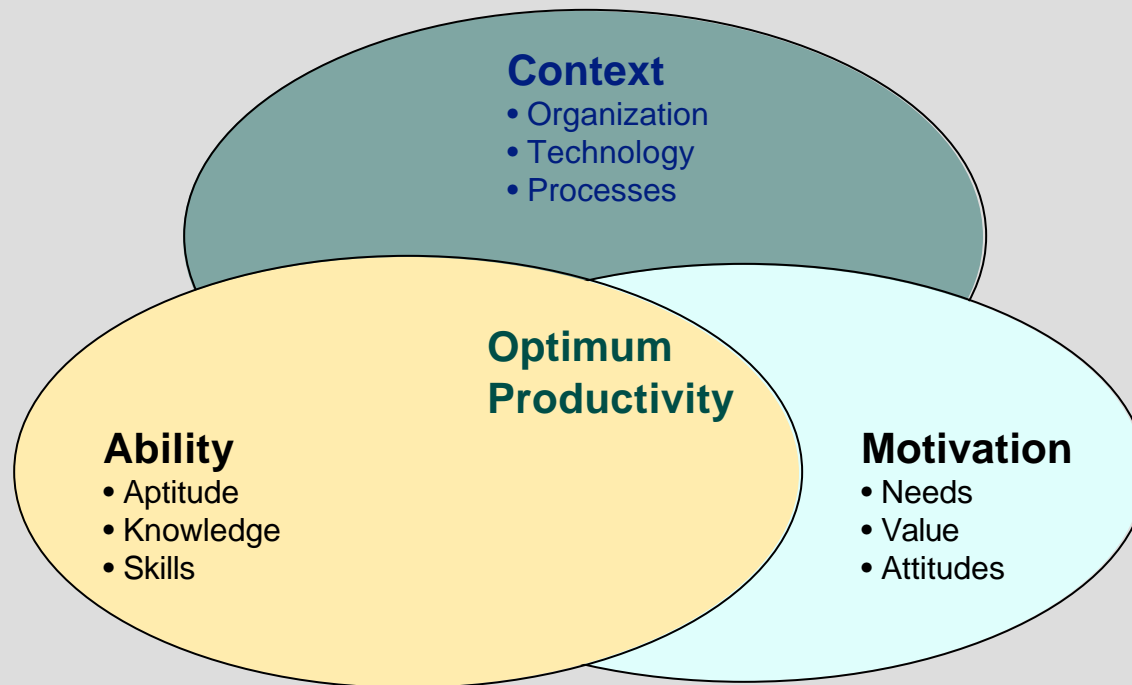
- What is TBT services?
 - Tools and infrastructures to enable TBT
 - Content integration and production
 - Content delivery and tracking

Interdependencies/Impact

- Desktop standard
- Employee tracking databases
- Multimedia strategy
- Network strategy
- Storage and repository strategy
- e-biz core services
- Factory application integration
- Office application integration

Productivity Improvement Model

- TBT will add value to all three areas



Source: FutureWork by Charles Winslow