



Raffles Institution

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**education  
technology**

<http://www.ri.edu.sg>

**2010**

1. Overview: Raffles Institution & Education Technology Department (ETD)
2. When to adopt technology?
3. Who develops e-content?
4. Typical workflow in content development for 360° Publishing-Learning
5. Infrastructure and resource implications
6. Our “virtual eco-system”
7. How content is crowned to be “King”

# Who We Are...

Founded by Sir Stamford Raffles in 1823, we are the oldest school in Singapore.

Raffles Institution is an independent school comprising an all-boys' Secondary section and a co-educational Junior College (K7-12).

We offer the Integrated Programme (RP), together with Raffles Girls' School (Secondary), or 6 years education.

<http://www.ri.edu.sg>





# Education Technologies Used in Teaching & Learning (Before 2007)

- RI provides education for students pursuing the General Certificate in Education, Advanced Level (GCE A-Levels).
- GCE A-Levels lacks the assessment component that incorporates online summative testing.
- Traditional F2F using productivity software to author content.
- Very small handful of teachers experimented with E-learning (Yahoo Groups, Moodle and Email)



- RI commenced its eLearning Pilot Programme in Jan 2007
- The deliverables are cascaded into 3 main areas:
  1. infrastructure setup & support
  2. courseware development
  3. student enrichment
- Management, teachers and students must keep an open-mind and trust that technology is the ideal catalyst to enhance the educational experience - with the right blend RI can develop a better learning environment for the digital natives

# Learning Behaviours Questions....

- Education has a lot of activities - school hours, tuition, CCA's, sports and **play time**?
- Do we allow time for children to explore what they want to explore?
- How do we help students to become “**explorers**” in learning if some parents do not fully understand and support this mode?
- Why do children love computer games? Can educators leverage on this entertainment platform?

# Too much information, too little time....

- We only have 24 hours a day.
- Learning is not studying, grades drive and shape studying behaviours.
- Ideally, assessments are reflections of one's level of understanding and the ability to solve problems with diversified methods.
- Are we giving the right amounts of information to cater to different rates of learners?
- Technology can help learning and understanding more efficiently, thereby warping time to allow exploration of self interests.







To provide an alternative conducive and productive learning environment so that face-to-face learning can be further enhanced with digital technologies.

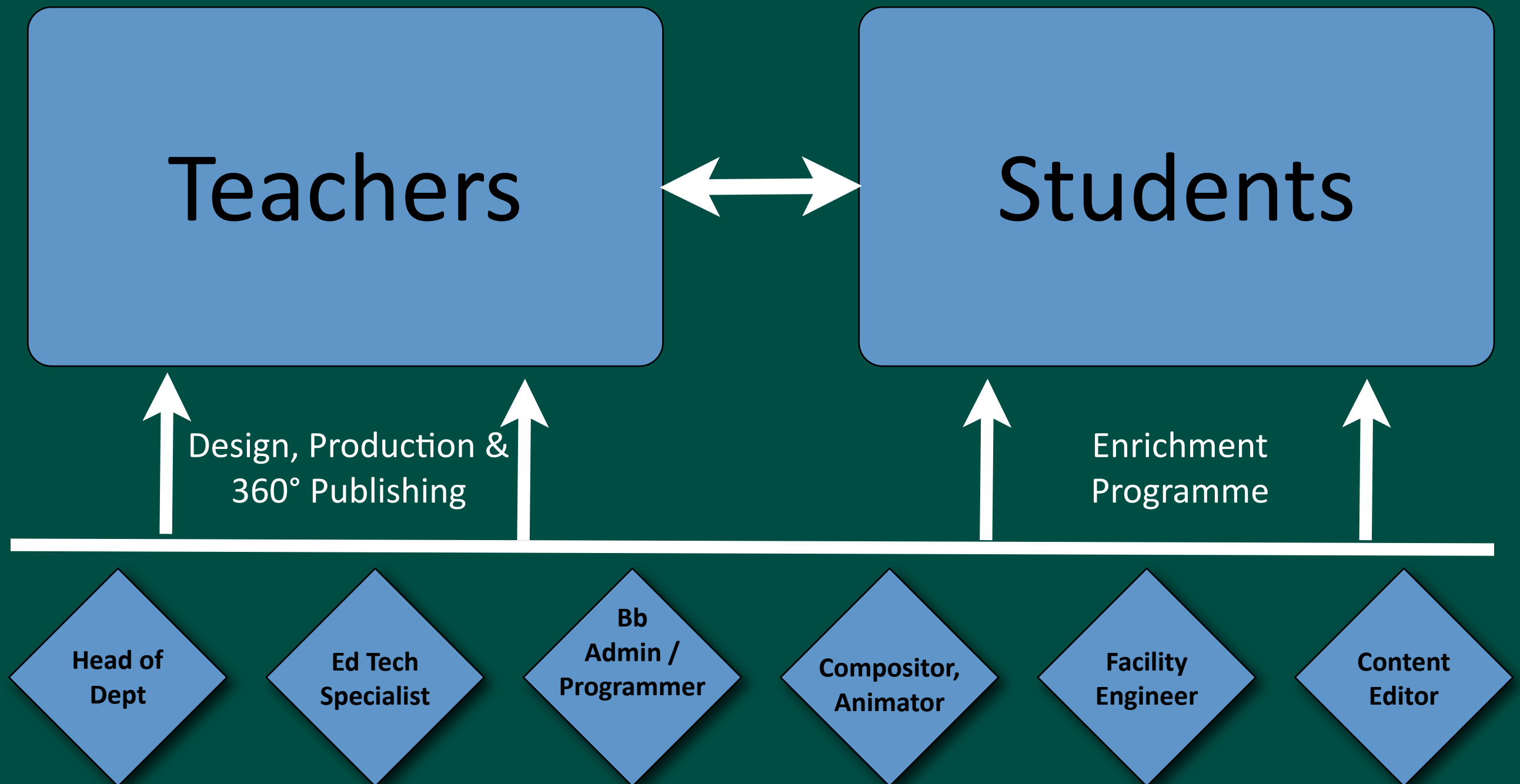
The ultimate outcome is to enhance a teacher's delivery, if needed, and provide a more effective, productive, timely and independent learning experience for students.

ETD serves the teachers by assuming the following roles:

- ▶ e-instructional designers
- ▶ Producers of multimedia teaching/learning content
- ▶ R&D specialists
- ▶ LMS administrator
- ▶ or technology specialists

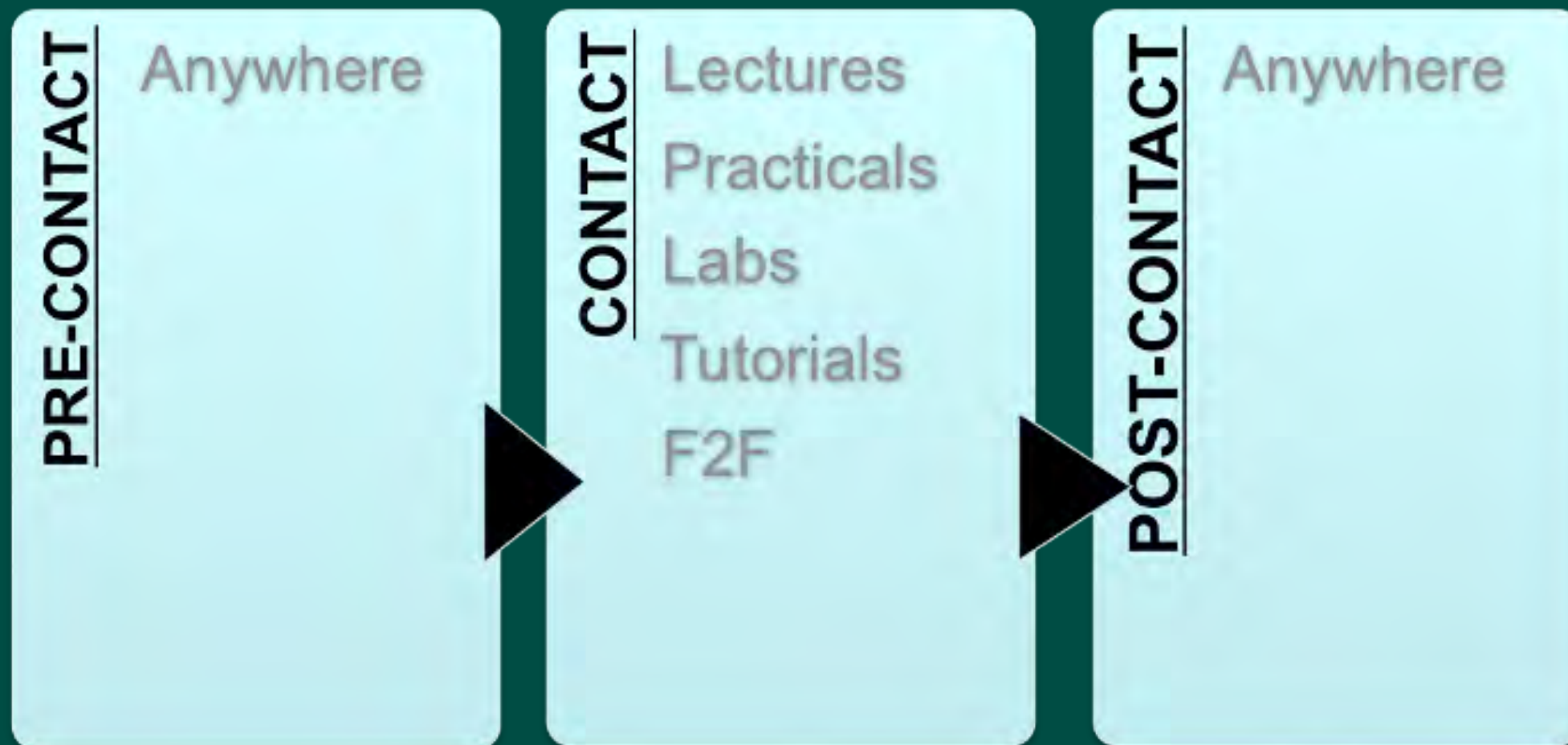
We DO NOT get involved with....

- ▶ School or student information administration
- ▶ IT/AV technical support





# When to Adopt Technology?





# Pre-Contact Strategies

## Suggested strategies:

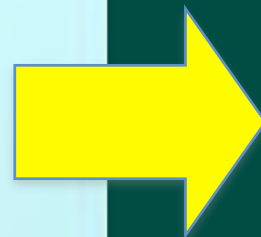
- Develop “**bite-sized**” learning packages to **prepare** for classroom contact.
- Create content for students to **review** and **prepare** for difficult topics ahead.
- Develop engaging pre-requisite materials/ exercises/notes to **support** classroom contacts.
- Provide external website links to **prepare** for discussions in class.
- Cultivate students to be more **disciplined** when learning. This leads to better time-management practices.



## CONTACT

Lectures  
Practicals  
Labs  
Tutorials  
F2F

Drive  
Clarity



### Suggested strategies:

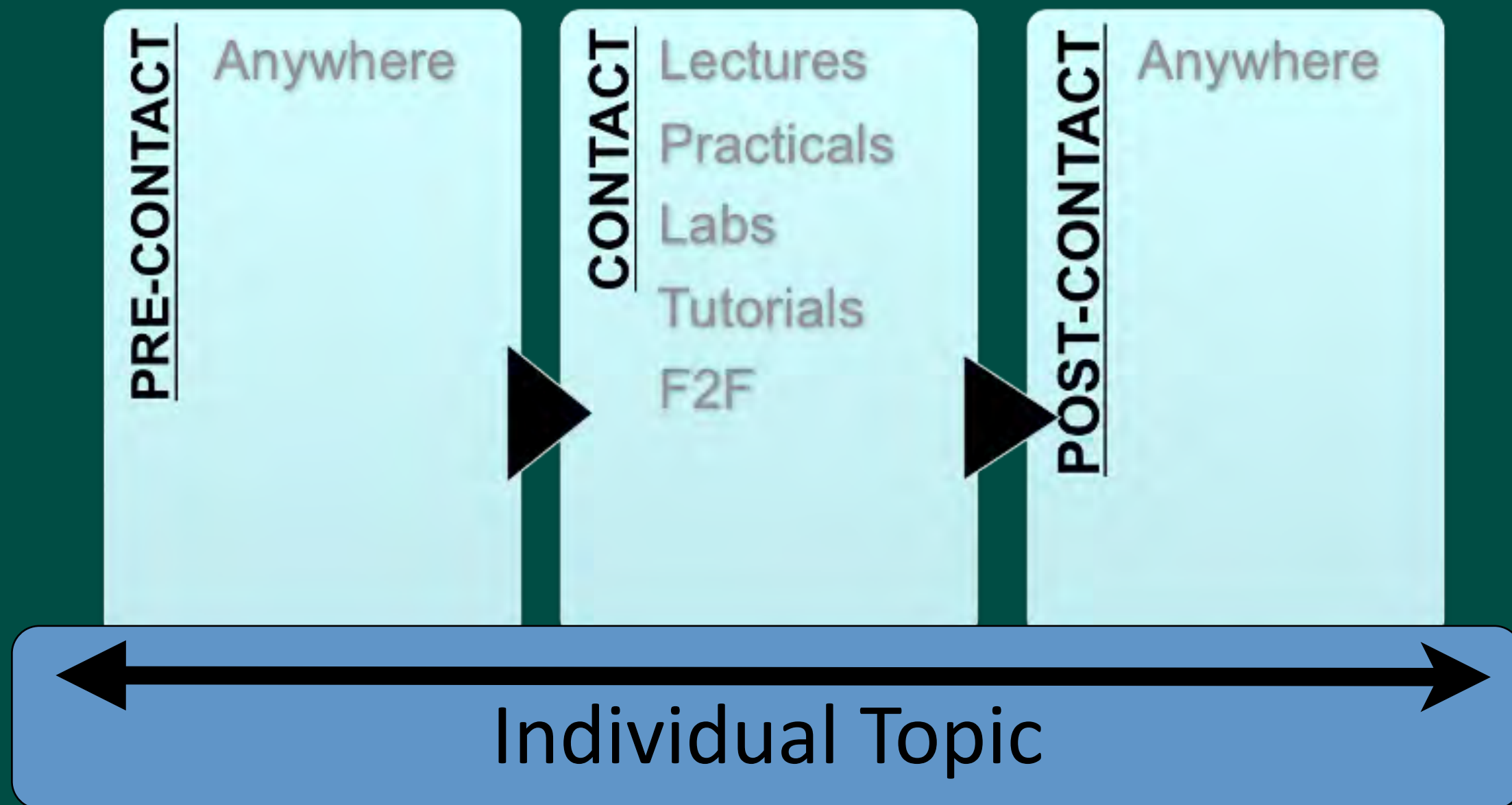
- Interactive presentations (animation, videos, audio, etc) to **complement/support** traditional lecture/tutorial/lab/practical classes.
- Create **optional** classroom presentation recordings (ie. use of tablet PC's and screen capturing software) for students to review what was taught during class contacts.

# Post-Contact Strategies



## Suggested strategies:

- Online exercises/formative assessments to **validate** their understanding of all or some topics.
- **Integrate** topics vertically/ horizontally with continued learning.
- Captured, archived, and indexed classroom lectures allows students to make up missed classes or **review/reinforce/master** specific material before an exam, ultimately improving student learning outcomes.
- Provide a “just-in-time” or asynchronous learning platform and promote/cultivate **independent learning** outside classroom.



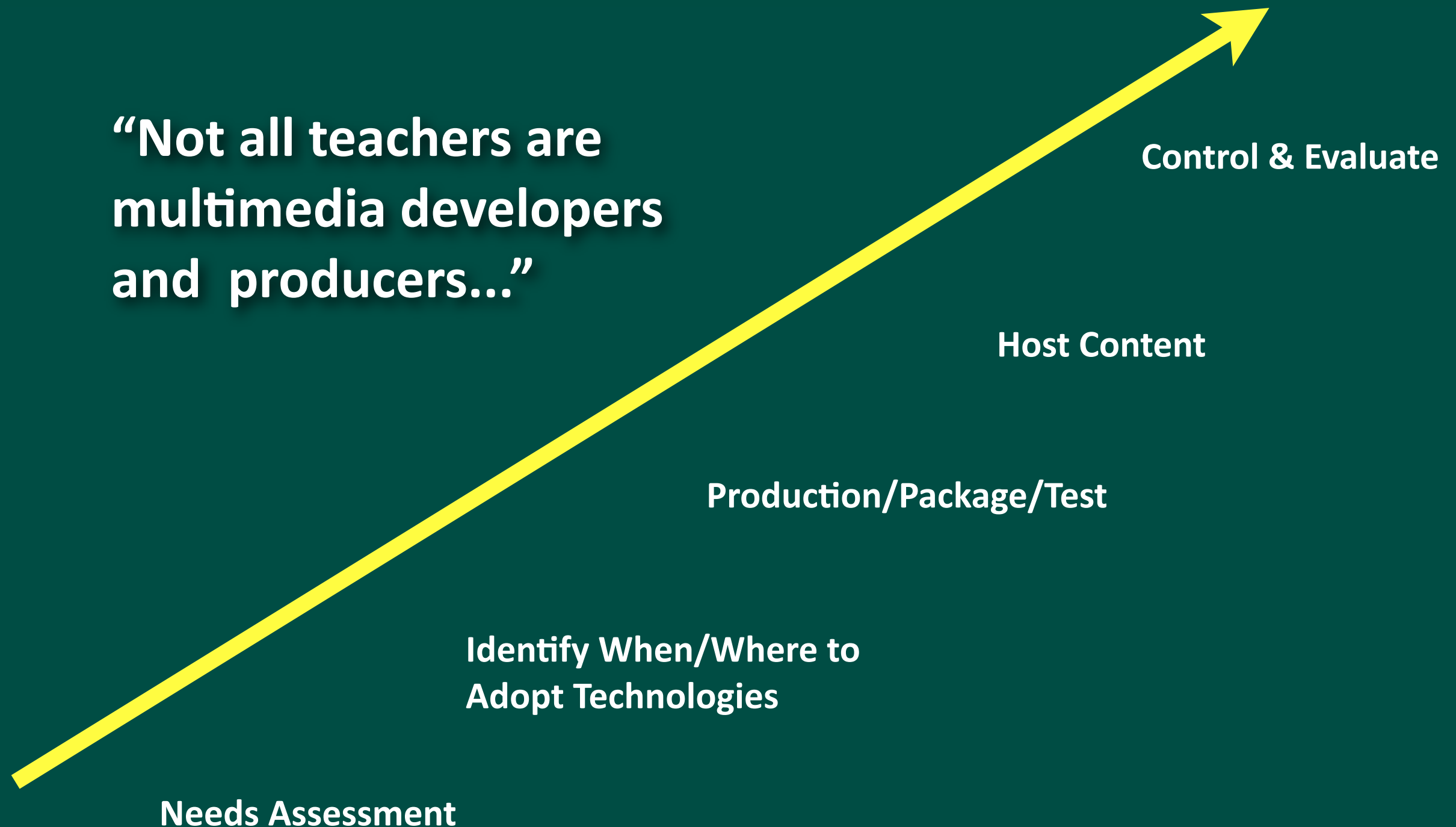
Multiple learning activities, single topic

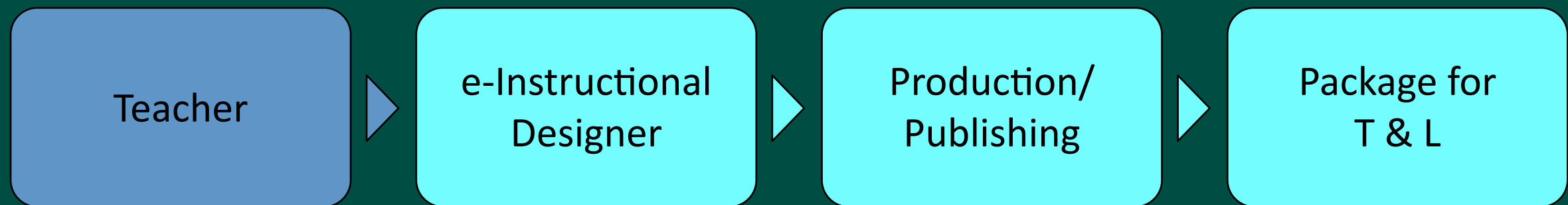




# Who Develops & Produces E-content for T&L?

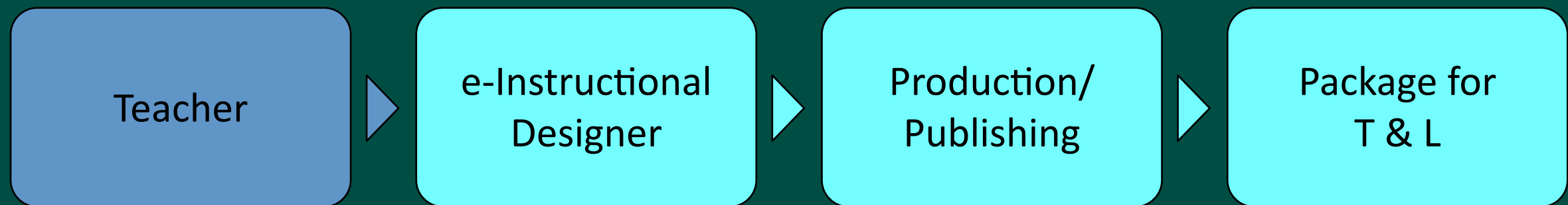
**“Not all teachers are  
multimedia developers  
and producers...”**





Teachers come to ETD with the following:

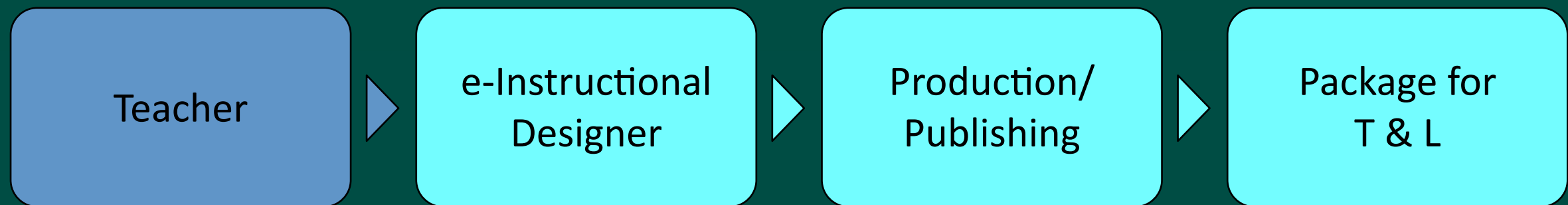
- 1) Syllabus
- 2) Student notes
- 3) Presentation files (PPT)
- 4) Question Bank (hard/softcopy)
- 5) Worksheets



## Discussion - Teacher and ETD Member

- 1) Areas to decide:
  - a) What are the issues/objectives?
  - b) Which areas within the topic?
  - c) Technology used at Pre/Post or during contact.
  - d) Deadline
  - e) Security Levels
- 3) Profile teachers' communication skills.

# Typical Workflow

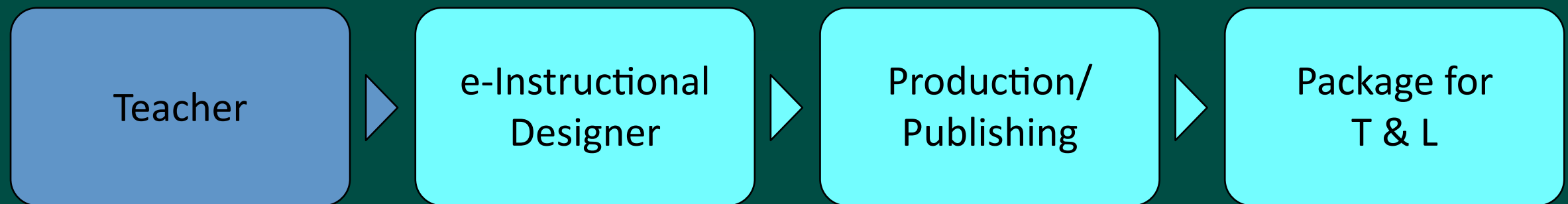


## Possible Deliverables

- 1) Classroom recordings
- 2) Rich Media “e-Crumbs”
- 3) Web courses
- 4) Formative Assessments
- 5) Interactive games/exercises
- 6) Virtual Learning Journeys
- 7) Copyright Clearance
- 8) Original Student Notes

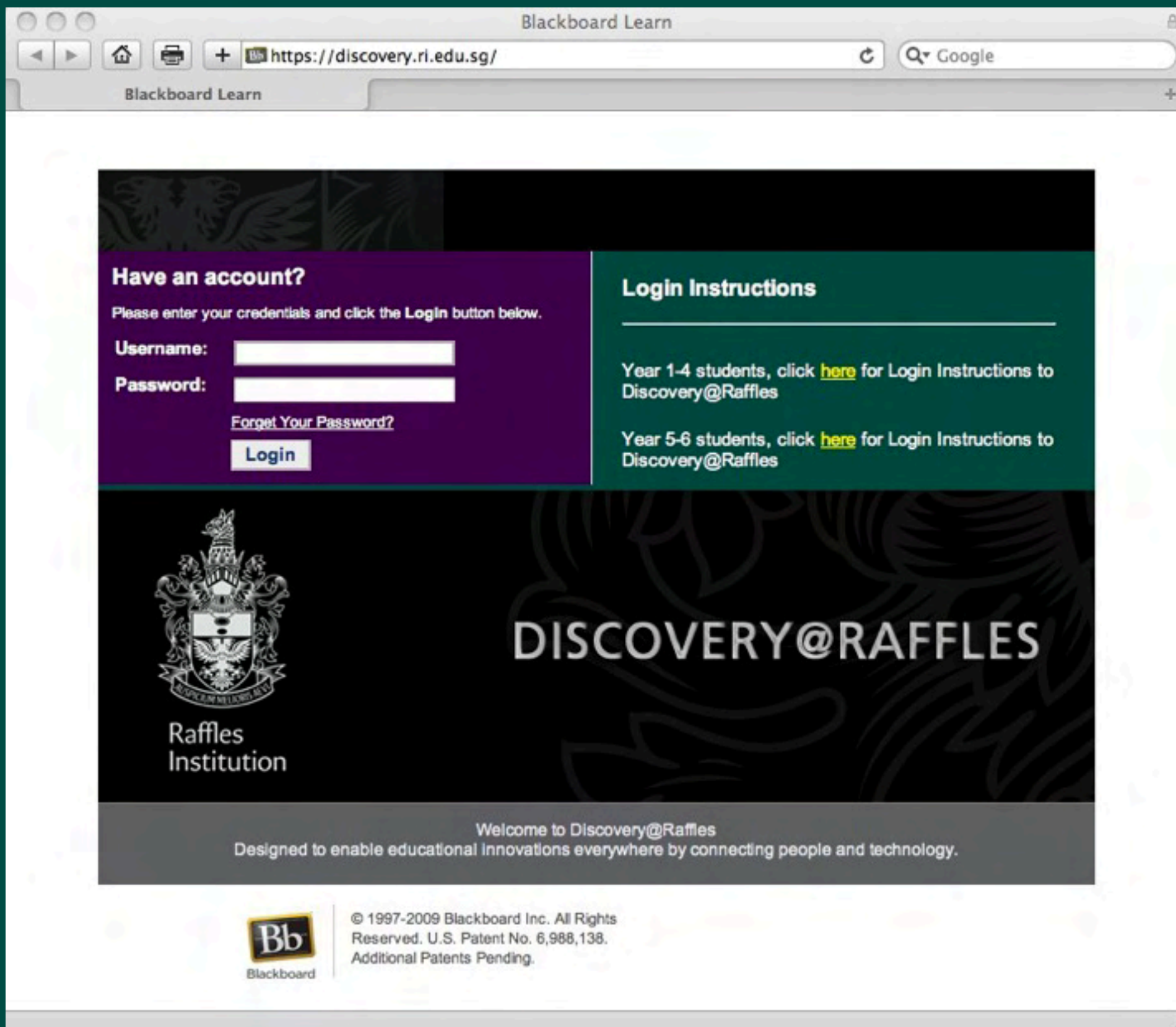


# Typical Workflow



## Delivery Platforms

- 1) Security add-ons (ie. DRM)
- 2) Blackboard
- 3) Classroom delivery support
- 4) Library or student labs



Blackboard Learn

https://discovery.ri.edu.sg/

Google

Blackboard Learn

### Have an account?

Please enter your credentials and click the **Login** button below.

Username:

Password:


[Forget Your Password?](#)

**Login**

### Login Instructions

Year 1-4 students, click [here](#) for Login Instructions to Discovery@Raffles


Year 5-6 students, click [here](#) for Login Instructions to Discovery@Raffles



Raffles Institution

# DISCOVERY@RAFFLES

Welcome to Discovery@Raffles  
Designed to enable educational innovations everywhere by connecting people and technology.



© 1997-2009 Blackboard Inc. All Rights Reserved. U.S. Patent No. 6,988,138. Additional Patents Pending.



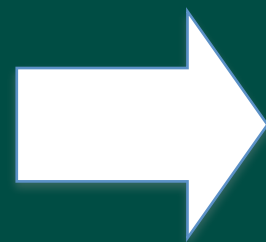
# What We Require From LMS

- Accommodation for large user base (up to 7,000)
- Scalable
- Works well with evolving web/media standards
- Customisation for individual to groups to school
- Upward vertical integration to higher ed schools
- Alumni support
- E-Portfolio creation and management
- Anti-plagiarism support
- Online formative assessment formats



Since Apr 2007

OLD  
LMS



**Jan 2010**



**Blackboard**

Blackboard





# Home-Sweet-Home

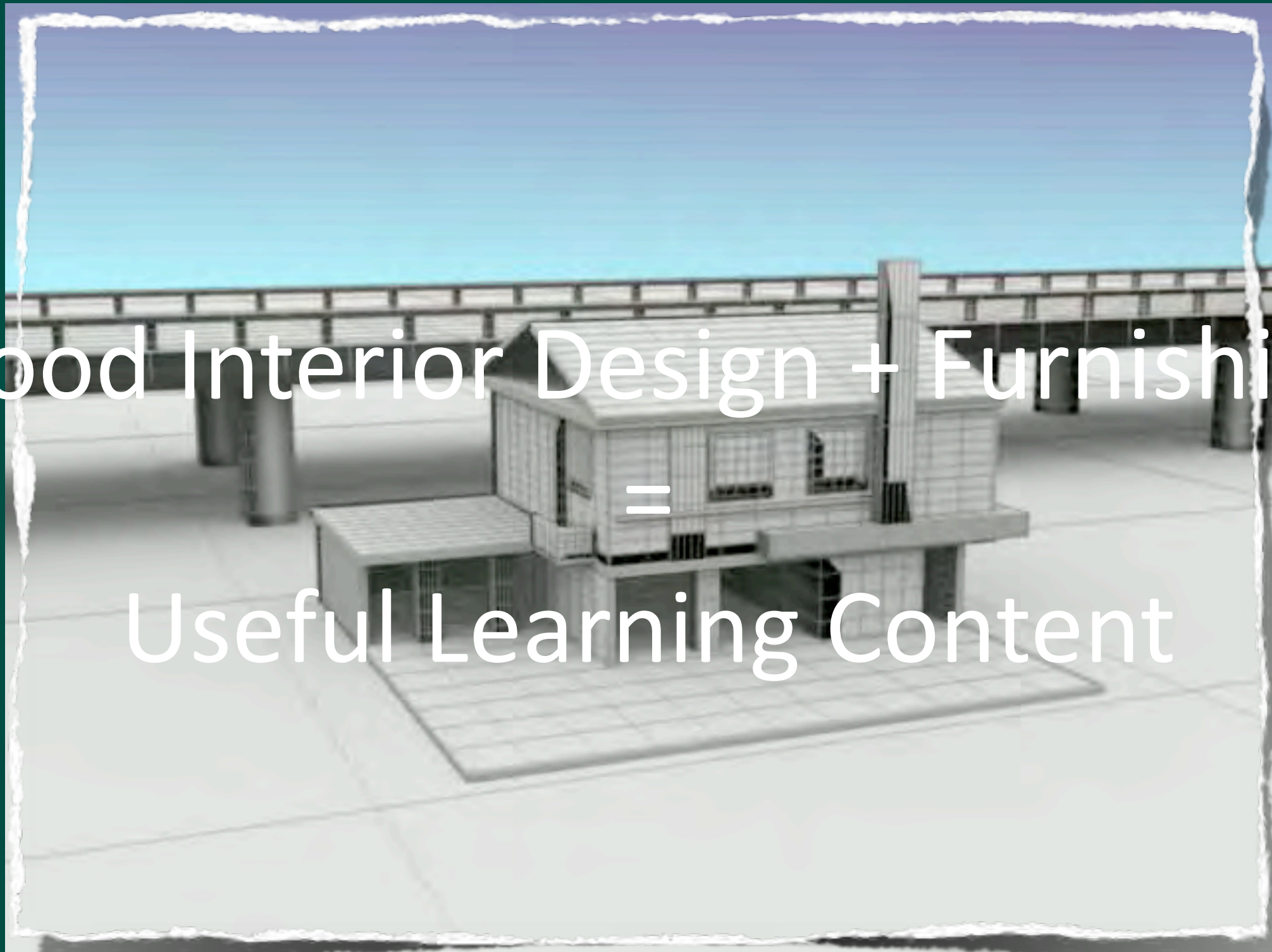


Treat Bb like your home



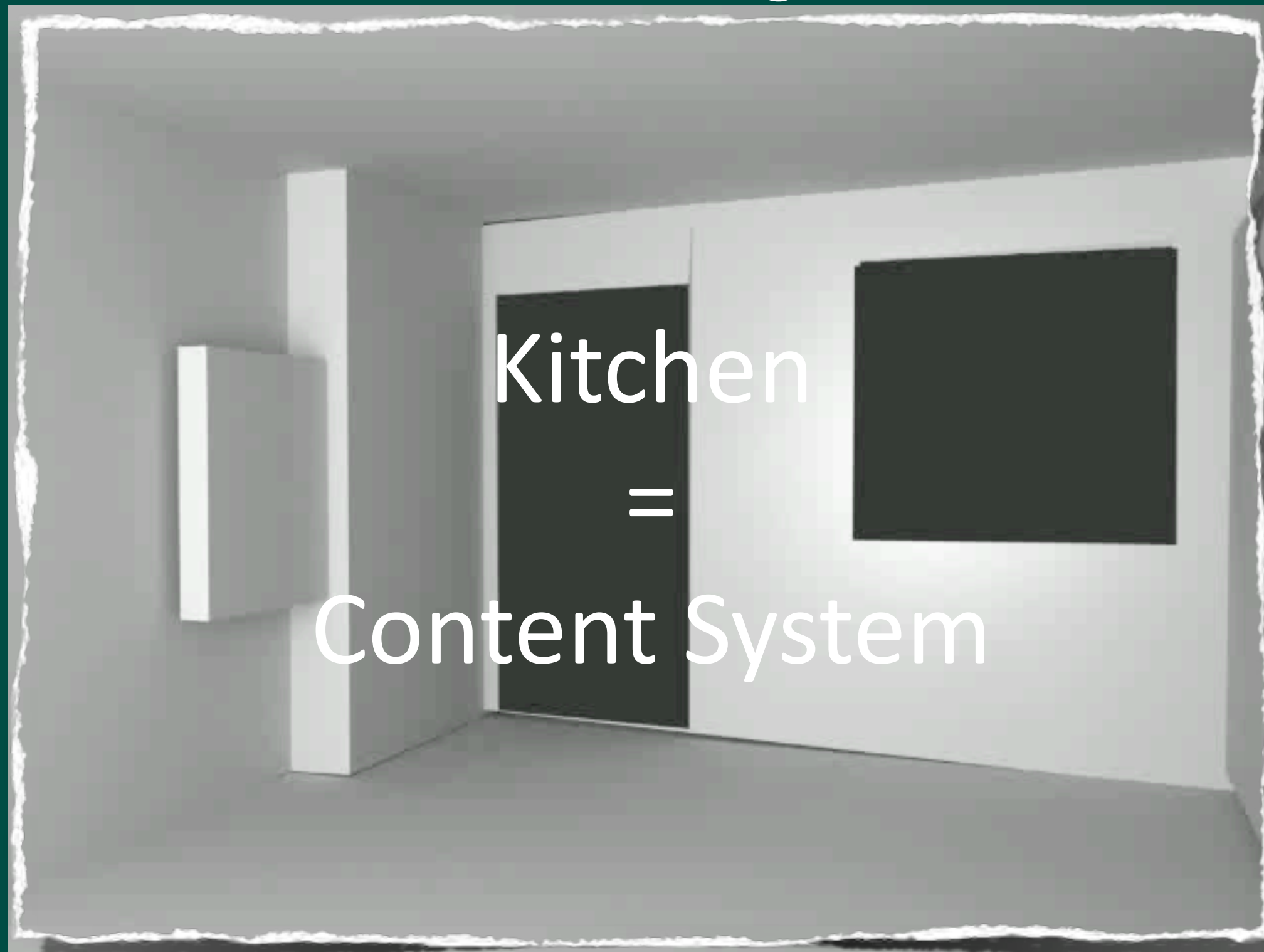
## Individual Room Decorations

Good Interior Design + Furnishing  
=  
Useful Learning Content





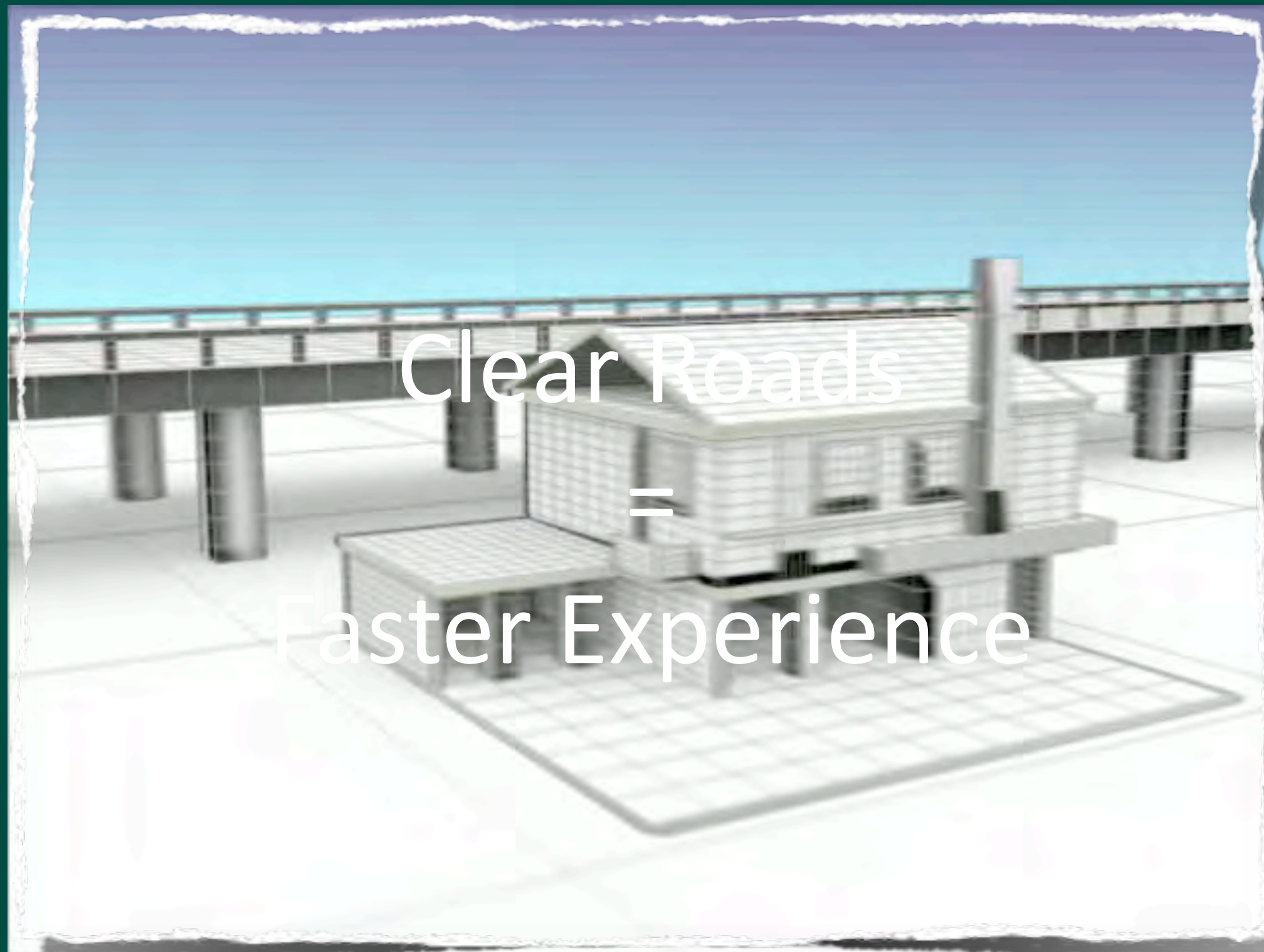
## Common Living Areas







# Convenient Transportation System



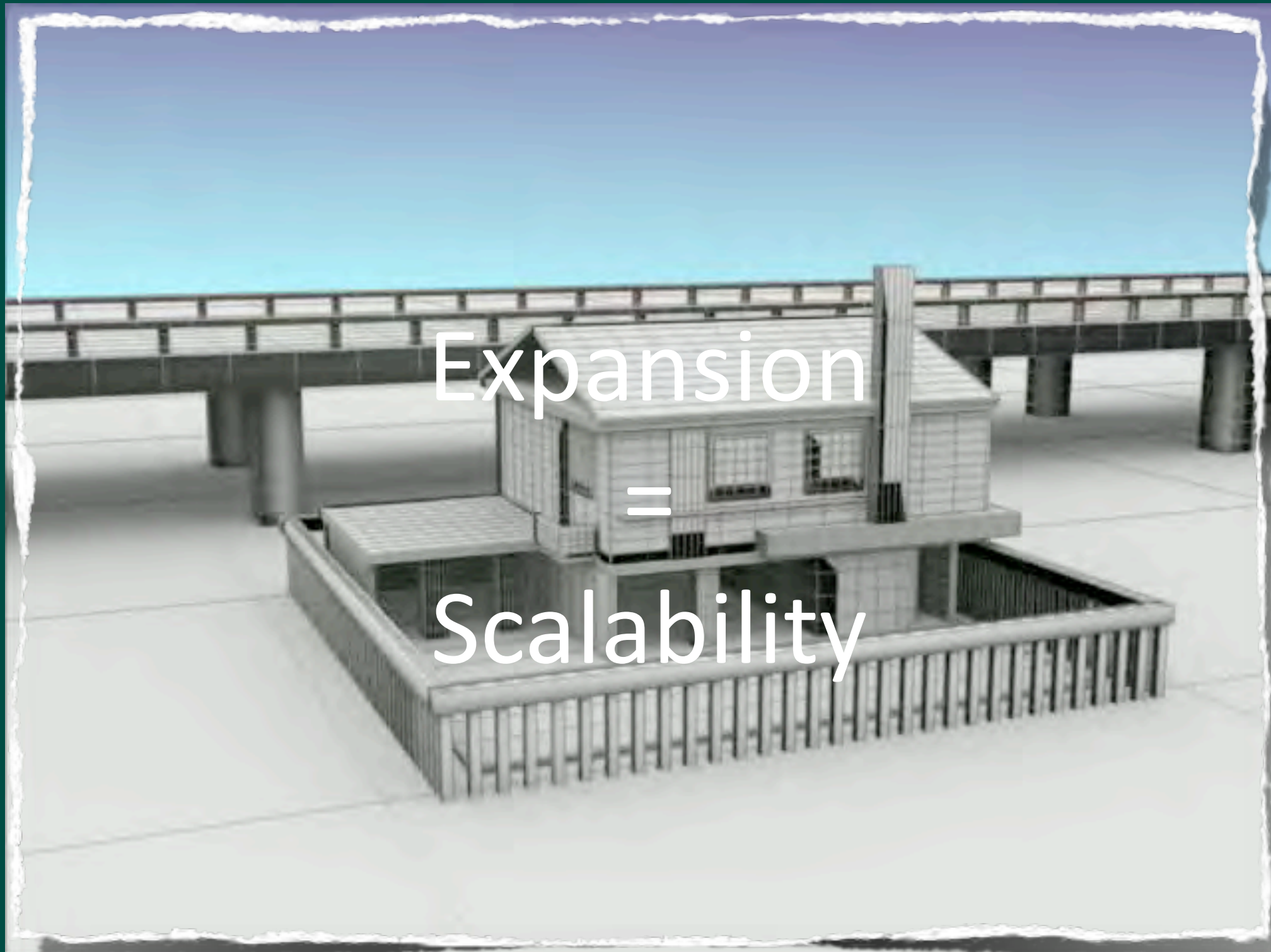


# Home Security





# Future Expansion and Renovation





# Trusted Neighbours



# Justification.....

## Has it been Justified?

**LET'S THINK ABOUT.....**

- How do you justify the usage of your home purchase?
- Metrics, utilisation rates, downloads, log ins, etc....  
are these the measurements you can (should) use to justify your investment?
- Usage metrics will naturally steer teachers to produce quantity of e-content, rather than quality.
- More schools should navigate towards reporting of the incremental benefits of using the LMS for teaching and learning.





# Bb Services (Before & After Deployment)

- Know yourself first - capability, manpower & resources.
- Have practical knowledge in the various consulting, integration and training services provided by Bb before adoption.
- Study the competencies of School Administrators and the support staff and plan out the services accordingly before and after deployment (for budgeting as well).
- Bb rollout will be smoother with relevant and cost-effective services, if required.

Bb is as good as what you do with it.

1. Quality Living (Teaching & Learning)
2. Happy Family Members (Staff/Students)
3. Good Neighborhood (Bb Partners)
4. Home Improvements (Building Blocks)
5. Open Transportation System (Internet)
6. Good Housekeeping (Routine Maintenance)
7. Convenient Shopping ([www.edugarage.com](http://www.edugarage.com))
8. Home Expansion (Scalability)
9. And others.....



- Content is King when it is used:
  - with ideal quantity;
  - at the right timing;
  - in the right context;
  - and hosted on the most ideal platform.
- Content should cater to different rates and styles of learners.
- Content should help students achieve their learning objectives faster so they can have more time to explore personal interests.



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**Thank**



**You!**

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